

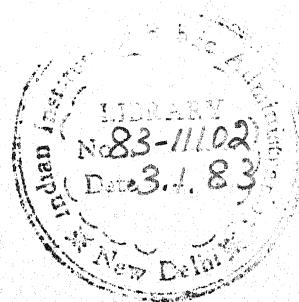
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SLUMS AND SQUATTER SETTLEMENTS

IN AN INDIAN MILLION (+) CITY

Policies, Programmes and Perspectives



**V. JAGANNADHAM
C. M. PALVIA**

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JUNE 1977**

PROLOGUE

More than seven years are already over, since the holding of the two-week (from February 15 to March 1, 1970) U.N. Inter-regional Seminar on Improvement of Slums and Uncontrolled Settlements, at the University of Antioquia, Medellin (Columbia) in North-west of South America. The seminar was attended by 27 country representatives as also experts of international organisations, namely, (1) Economic Commission for Africa; (2) Economic and Social Commission for Asia and Pacific (formerly ECAFE); (3) Economic Commission for Latin America; (4) U.N. Economic and Social Affairs Office, at Beirut; (5) United Nations Children Fund; (6) World Food Programme; (7) Food and Agriculture Organization; (10) Organisation of American States; (11) Inter-American Development Banks; (12) United States Agency for International Development; (13) Foundation for Cooperative Housing; and (14) U.N. Headquarters' Centre for Housing, Building and Planning. The report (U.N. Sales No. E.71.IV.6) of the seminar published in 1971, gives; (a) a comprehensive account of the investment and development policies pursued for housing and slum and squatter settlements in developing countries of Africa, Asia and the Far East, Latin America and Middle East; (b) an overall approach in regard to land policies, financing, building, economic activities, social aspects, administration etc.; and (c) the role of international organizations in ameliorating the conditions in slums and squatter settlements.

2. In India, studies relating to the problem have been done by (a) individual scholars (as a part of wider studies - primarily resulting in socio-economic surveys sponsored by Research Programme Committee of the Planning Commission); (b) National Sample Survey Report No. 53; (c) Labour Commission and Labour Inquiry Committees - mainly for slums of industrial labour; (d) Reports/Studies by Indian Council of Social Welfare in 1951; (e) Slum Clearance Seminar Report by Indian Conference of Social work in 1957; (f) Slums of Madras (Census of India 1961, vol. 9 part XI-C Delhi - 1965); (g) Glimpses of Slum work in Delhi (Bharat Sewak Samaj Report - 1962) and also by Town and Country Planning Organization (h) C.M.P.Os studies for Calcutta; and (i) for Bombay by the Tata Institute of Social Sciences.

3. The launching of the Slum Clearance and Improvement Scheme in the Second Plan and the enactment of Slum Clearance and Improvement Act 1956, gave an organised institutionalisation push on all-India level as a part of planning strategy in housing field for weaker sections of the population. The Scheme provided for (i) acquisition of slums and re-housing of families whose income does not exceed Rs. 350/- p.m.; (ii) improvement of environmental conditions in existing slums; and (iii) construction of night shelters. For all these the Centre gives financial assistance in the form of 'block grants' and 'block loans' to states/Union Territories.

By the end of 1974, about Rs.500 million were spent on this programme though the aggregate plan provision was nearly Rs.1,000 millions for the period 1956-1974.

4. However, the well-documented studies for the other four 'million + population' towns (besides Bombay, Calcutta, Delhi and Madras) namely, Ahmedabad, Bangalore, Hyderabad and Kanpur) were not attempted specifically on the problems of slums and squatter settlements. It was timely that the National Buildings Organization (Ministry of Works and Housing) in mid-1975, thought of getting these studies done by granting research grants. The Indian Institute of Public Administration (New Delhi) was requested to undertake study for Kanpur; Indian Institute of Economics (Hyderabad), for Bangalore and Hyderabad; and Ahmedabad-based Sardar Patel Institute for Economic and Change, for Ahmedabad. A meeting of the 'Project Directors' of the four research projects was held in Hyderabad in October, 1975 to develop some elements of uniformity in concepts sample design, approaches etc. in the hope that at a future date an integrated study of the four cities will be undertaken.

5. The work for Kanpur was initiated in January, 1976. The first visit to Kanpur was made in February, 1976 to seek base data, and to establish liaison with Kanpur Municipal Corporation, Kanpur Development Authority, District Statistical Office (Shri Sitala Prasad), District Census Office (Shri K.S.Upadhyaya), Labour Commissioner, U.P. (Shri L.C.Sharma) Director of Industries, U.P. Regional Labour Institute (Dr.Agarwal) and some of the academicians in Kanpur colleges and Indian Institute of Technology.

6. Firstly, an attempt was made to list slum and squatter clusters in Kanpur, in which full collaboration was available from Kanpur Municipal Corporation/Kanpur Development Authority, through the courtesy of Shri P.N.Kaul(Vice-Chairman of K.D.A.), Shri J.V.Badami (Chief Engineer of K.D.A.), Shri Y.K.Raheja (Executive Engineer Kanpur Municipal Corporation). Arising from the foregoing, research design was developed for canvassing the Household Schedule followed by determining the sample sizes of slum households and squatter households. The Schedule was canvassed during July-August 1976; the data were checked and computer feeding of the data was presented at the Computer Centre (Planning Commission) during September-October-November, 1976. The frame and substantive issues for writing the report were crystallised in January and February, 1977 - alongwith cutting out of meaningful statistical tables for analysis of the data out of the tabulation programme executed by the Computer Centre.

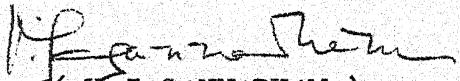
7. In the conducting of the Survey in Kanpur, it is gratifying to say that ungrudging cooperation and advice was

forthcoming from various organisations/individuals in Kanpur, as stated above. In Delhi, the Director of I.I.P.A. (Shri R.N.Haldipur) was extremely helpful in smoothening various academic, personnel and administrative problems; as well as he took interest in regard to progress made in project work, at different points of time, during the currency of the project. Director of N.B.O. (earlier Shri Rabinder Singh and later Shri G.C.Mathur), Joint Director (Socio-Econ.) - earlier Shri A.S.Rao and later Shri B.N.Nair, Shri S.N.Narang - Deputy Director, N.B.O., Shri R.C.Chanda, Joint Director, Computer Centre (Planning Commission), etc. cheerfully offered suggestions.

In accomplishing the Project Report, unflinching work was done by the Project staff; in particular, Shri P.N. Chowdhari (Research Associate) alongwith Senior Investigators S/Shri Ved Awasthi, and R.S.Ratra, Shri Chowdhari also spent a couple of weeks in Kanpur at the time of 'cluster survey work' and also at the time of canvassing the 'Household Schedule' to the slum and squatter households' heads - and he also assisted assiduously towards drafting of the Report.

Shri R.G.Mulgund(Registrar, IIPIA) and Assistant Registrars - S/Shri S.K.Kohli (Admn) and A.S.Nagar (Accounts) and Shri Ramakrishna (Training) alongwith other staff were always helpful in getting the project work completed.

Shri G.C.Tandon, as a Stenographer and A.K.Gupta Typist were always found willing workers respectively in taking dictation and typing. It is relevant to mention that Kumari Anjali Garg did diligently the work at the last stages of the Report in typing final draft and cutting the stencils.


(V.JAGANNADHAM)
PROJECT - DIRECTOR

P.S. The responsibility for the views expressed in the Report is that of the Authors and not that of the various persons/organisations with whom we had the opportunity to consult.

* * * * * It is acknowledged that the Report has been drafted by the Associate Project Director (Dr.C.M. PALVIA) - assisted by Research Associate (Shri P.N.Ghoshduri), who also looked after field work in Kanpur with a team of two Senior Investigators (S/Shri, Ved Awasthi and R.S. Patra). A band of 10 post-graduate students of Kanpur Colleges worked as Interviewers to canvass the Household Schedule under supervision of Professor Nailwal of D.A.V. College, Kanpur

The Polarity of Slum & Squatter Settlements

Data from cities in some countries allow a comparison of income levels among squatters or slum dwellers in central locations and squatters or semi-squatters in peripheral areas. The difference is marked: the peripheral settlers are almost always of a higher socio-economic status than central city slum or provisional settlement dwellers. And, in every case where records are available, the majority of the settlers - who are building permanent houses - were previously resident in the city.....Recent rural migrants naturally tend to reproduce many urban functions such as markets which provide casual labour for the very poor. These settlement areas will, therefore, attract the very poor - especially rural migrants with established settler relatives. The initial differentiation may tend to become obscured with time but it is clearly most important to recognize the distinctly different nature and function which the peripheral settlement has in contrast to centrally located settlements.

The social function and physical nature of the more centrally located incipient settlements are less clear. The marginal outcrop sites which they occupy are often equally suitable for the very poor man - providing him with a rent-free location for his shack, and for the less poor wage earner - providing him with an inexpensive or free plot for a permanent dwelling. The poor shanty-dweller may very well become a wage-earner, quite able to afford some amount of money on building materials every week. If this change of economic status takes place without a change of location, and if the original shanty site is large enough and sufficiently accessible, the shanty will be replaced by a more solidly built house, which results in a mixture of shacks and solid structures. As settlements with these mixed characteristics are among the most common - and are easily the most visible in the cities where they do occur - it is hardly surprising that they should provoke so many and such contradictory observations.

Diagram - 6(a)
Lorenz Curve of the Income-Expenditure Distribution cumulative

Percentage & the Cumulative Percentage of Slum and Non-slum
Householders (Refer to table No. 6-09 of the Report for data.)

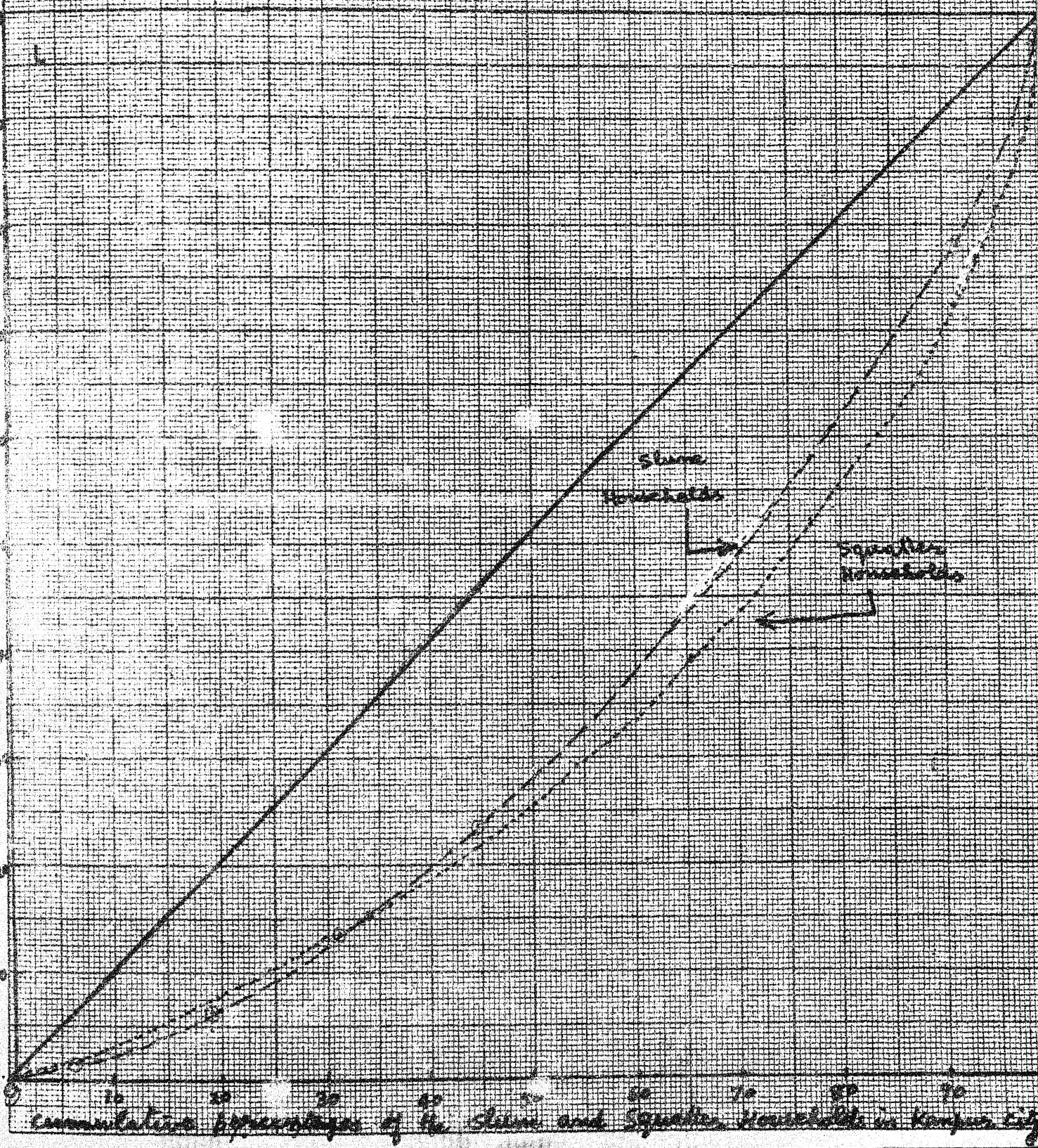


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DIAGRAM-

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HOUSEHOLD SCHEDULE

I N T R O D U C T I O N

Slum & their Sizes, 0.01 . . . From one society to other society, the content, bases and meaning and concept of the slums differ. So also it Composition is equally true that what is regarded as a slum in affluent countries, can pass as a good standard house in developed countries. In spite of it, ^{for} the slums, bustees, jhopar-patties, shanties, chawls, cherries, in different cities in India, it is not controversial, to say that slum and squatter settlements are a mirror to reflect the lowest level of human life style. ^{Dimensionally} if in 1951,

the population of larger cities and metropolis in slums represented one-fifth of the total city population of India, it was over one-fourth, in 1961; three-tenths, in 1971; and easily about one-third to seven-twentieths (or 35 percent), in 1976. The low-level residential units of above type do not restrict their growth to any specific areas; they are omnipotent, all-pervading, and highly dynamic and grow in and around rich villas, sea-faces banks of rivers, on the sidelines of grand trunk roads and railways, narrow lanes and nullahs, hill-tops, vacant ^{and} areas in central business districts, ^{near} the entrances of the elegant palatial structures. The ^{and} lanes in slums are sprinkled with human and animal refuses, half-clad ^{and} half-naked men, women and rickety children with puffed-up bellies rummage and play near dustbins where rotting carcass of a dog ^{and} pig stinks the air, drains filled with excreta, and sick just breathe through nostrils the ugliest odour of stinking latrines and sewerage. Over-crowding ^{is} so suffocating that no worthwhile house or room is available-as population is growing faster than housing and therefore 'slum conditions and habitations' are growing much faster. In case the problem is not urgently confronted with all pragmatism and speed, the simultaneous growth of slums and squatter settlements will

gird round the high-rise skyscrapers in the metropolises and megalopolises - wherein the citizenry that will grow will be qualitatively ^{raw and} rough lacking in culture without hope and progress.

0.02 The tendency to determine policies at the top, without the participation of the state, regional, municipal authorities - since no two slum and squatter settlements are identical - boomerangs into infertility. Approximately nine-tenths of Bombay slums have been raised on public land; and similar proportion of slums in Poona are on private land-but the shanties raised are of the slum and squatter dwellers. In medium level cities (with 0.3 to 0.5 million population) most of the shanty dwellers or roofless housing construction labourers and in 'plus million' cities (which ^{are} eight in India), the occupation distribution is variegated. Thus adoption of differential policies shall have to be enunciated to suit ~~speci~~ ^{fic} problems but it shall have to be a dynamic one to suit each of the situations. The problem of low-income housing and that of slum and squatter households is not a physical exercise-it has to be a scheme with built-in community participation and resources - towards developing environment climate. For this knowledge of base-data is almost poor in quality lacking sifting operation to enable mounting of well-knit policy and flexible outlook to modify programme - actions according to the demands of different situations: otherwise the men will die to exist again and again.

0.03 The slum and squatter ^{dwellers} are rural migrants with diverse occupation - as pedlars of a largest-variety of goods or holding menial jobs in offices and factories or working as domestic servants - but some of them are urbanites who due to distress conditions migrated to slum areas from middle-income clusters. The slum-dwellers non-economic life moves on the orbit of innate ~~emotions~~ and

sentiments and they attempt to live life style of their ancestors and create insulation against the outside world; they quarrel furiously occasionally but they also sustain firm attachment to each other. They are sympathetic and helpful to a person of their class ^{and} have them as co-tenants. Many of the slum-dwellers live double life - the life of village and also the life of the town without integrating them together. Unreality haunts while standing, sitting and sleeping over the vanishing phantoms of land on which the cottages have been perched - where ^a perpetual transitoryness functions as 'Democles Sword' where incessant dog-fight drama is played between the static morality of the present and the distorted image of the past.

0.04 The slum phenomenon is a black-spot of industrial culture - where scorched hundreds and thousands seek shelter. But such slums are not the major progeny of industrial society in India - where abound poverty and destitution, insanitation and congestion, ~~worthless~~ ^{non-existent} minimum essential and community services. Perhaps slums do not produce criminals, but it could be that crimes beget slums. Slums can also function as vote-banks for political parties/functions.

The Status of the Problem & Suggested Steps 0.05 Interestingly quite often, the shanty-towns do not raise intractable problems; in fact, after conversing and participating with the residents an impression is stamped that the inhabitants are content with the existing conditions. What they miss is water connections and facilities for sanitary facilities; once these are made available they would be happy to live in the shanty towns. It is also important that sometimes the slum and squatter residents may be a source of confusion and mischief when to ward off the heat of summer - may even open the hydrants and taps to have a luxuriant bath - but leave them flowing-allowing thousands of buckets of good water wasted. In a majority of squatter settlements, some positive factors can also be noticed which may help in garnering factors for family improvement through community participation.

0.06 It is, however, significant to remember that process of migration to the urban centres is irreversible; but it is equally true that in developing countries (and so also in India) about 65-75 percent of the total households, belong to low-income households - and whether they are in the rural or urban centres they need direct and indirect capital and recurring subsidies for achieving redistributive justice. People living in the slum and squatter settlements, perhaps need more of these subsidies since their sectoral proportion of low-income households is comparatively larger and new migrants to urban areas have to further face disorganised realities - particularly in regard to supply of essential and community public services (such as, water i.e. potable water, electricity, drains, sewerage, schools, shopping areas, health clinics, community centres, parks, play-grounds etc.) and above all residential accommodation. The last one demands for the availability of secure land - fully developed on lease or free-hold enabling popular participation. For constructing dwelling, 'finance' is necessary to purchase materials and hire labour and trade skills; terms of financial viability requires long-pe~~riod~~ credit on soft-term basis - for which the institution of 'revolving fund' can prove efficacious.

0.07 The solutions to slum and squatter settlements problems - can be preventive and curative. In regard to the first, rational allocation of some investment in creating urban and employment conditions in the rural areas as well as small towns can help to arrest the latitudinal rush of rural migrants in bigger-sized cities. To correct the existing and perspective situation in slums and squatter settlements malady and plight of poverty and environment pollution, short-term, intermediate term, and long-term action-oriented programmes need to be launched. Short-term action which may, in quite many cases, turn out irrational - can be the demolition of slums; this often ends in establishment of uglier slums

away from work-place, / results in discontinuum (or complete break) from the familiar urban scene and life-style along with loss of some already available essential services such as, supply of potable water and sanitary system-- which cumulatively help in raising the 'quality of life' - as has been recently advocated, early in 1977, by Overseas Development Council of U.S.A. in terms of the index of PQLT (Physical Quality of Living Index) - based on (a) Life Expectancy; (b) Mortality & Infantile Mortality Rates; and (c) Literacy to achieve equitable distribution of social benefits. Intermediate or medium-term action could be the redevelopment of (i) some clusters of houses by rebuilding of roofs or walls or both; and (ii) provision in some parts of the area, of environmental and community services such as schools, health centres etc. where these are inevitably needed to update education and health standards.

0.08 Perspective solutions of the slum and squatter settlements, are innately and assuredly ingrained in the mechanism of integrating the regional, metropolitan and urban area programmes in the social and economic development plans according high priority to employment oriented targets. The financial and physical investments are the prime factors to meet the backlog of housing needs and current rise in growing housing requirements - but, above all, in this direction virile institutional participation by the public sector is ~~era~~ long urgent to eliminate existing slums as also to arrest development of new slums. Again, institutionalisation of ~~essential~~ and interim actions to channelise guidance, credit flow, vocational and technical assistance in the urban centres, call for immediacy, by establishing growth centres both in urban habitations and rural areas - to inhibit growth of slums and squatter colonies and to arrest flow of rural migrants to urban centres.

0.09 The short, medium and long term actions in any case require certain key and crucial strategies to organise timely and balanced supply of basic elements: (1) Land development policies; (2) flow of finance; (3) simple and meaningful building bye-laws; (4) fiscal and administrative instruments; and (5) international

holds urban population almost equivalent to that in the U.S.A)

Specifics of the Indian Housing Situation 0.10 Slums and Squatters' settlements are a striking feature of metropolitan and large cities in India. Jhuggi-jhonpris of Delhi, Choris of Madras, Zopadapattis of Bombay and Bustees of Calcutta can never escape the eyes of any visitor to these cities. These dilapidated and insanitary houses are not the monopoly of metropolitan towns of India but are also noticed in other countries and also in a large numbers in other towns.¹⁾ The irony is that they are not only in existence since years but are rapidly increasing everywhere in size and proportion. During several decades these settlements are having increasingly twin roles in the socio-cultural system; not only in the cities but also in rural areas whence migrants hail.

0.11 About 25-30 percent of the population, in Indian cities, lives in slums and/or squatter settlements, according to a report prepared by the National Committee of Environmental Planning and Coordination (NCEPC); the report which was prepared by the NCEPC for the recent UN Conference on Human Settlements at Vancouver also emphasized that in Delhi alone, more than half a million people lived in 1300 clusters of slums. In 1951, Delhi had one squatter households to 20 non-squatter households. In 1973, the proportion increased to one squatter household for every four non-squatter households. Thus the Capital's squatter population between 1951-1973 had a growth rate of 12 percent per annum as compared to the population growth rate of 3.4 percent. Similarly crowded hutments, narrow slush lanes, garbage swelling of urine, children without adequate clothes together with de-humanised migrants can as well be easily seen all over Bombay city. No less ugly scene comes across every day in Calcutta where the immigrants have been continuous victims of political, physical and social crisis in a complex of rural and urban societies as reflected in the jhuggis of Calcutta. Further the slums on marshy pieces of land form ribbons all over Madras

1) See Annex 0.01 (of Squatter Settlements in various countries.

bordering the highways. 'Cheris' of Madras are clear index of demoralised life of the under-privileged rural migrants. In the second stratum of the next four cities in Kanpur, Ahmedabad, Hyderabad, and Bangalore ^{the slum settlers} are the sufferers of the environmental degradation and lack of social services and community facilities. The squatter-settlements - the fastest growing areas on the urban fringes-are also causing havocs on the urban land of these cities.

0.12 The proportion of rural population in India today is about 80 percent. By the end of the century, it will come down to about 63 percent. This means that nearly additional 120 million people will be added to the rural population and 193 million to the urban population in the next two-and-a-half decades. The overall density of population would perhaps go up from 178 per sq.km in 1971, to nearly 250 persons per sq.km. in 2001. In turn the increase in population density may lower the per capita availability of resources - natural as also man-made.

In addition, a problem of environment and inadequacy of housing, income, water supply, social services, drainage and sewerage, paved streets and arrangements for removal of garbage and refuse disposal would have to be confronted.

0.13 Kanpur slum and squatter clusters show signs of stress on the urban fabric (consisting of essential and community services) since the growth of population has been outstripping following expansion of employment in the secondary and tertiary sectors. With more and more in-migration on the one hand and ^{lagging behind in} the construction of housing on the other, spontaneous unauthorised housing settlements have been growing. Both visible and invisible slum areas and squatter settlements in the heart of the town as also in periphery areas have been rising. Migrants with uncertain incomes and inability to pay exorbitant rents for housing in reasonably sanitary surroundings are forced to invade on whatever land available; and they as well construct shacks just for shelter without

hope of any/civic amenities. Poor and insecure households in search of a new urban life dependent upon casual jobs in uncertain labour market naturally look to slums as a source of 'hope'.

At the same time the permanent urban poor trapped in destitution and poverty languish in a run-down slum which have nothing else to offer but 'despair'. and squatter

0.14 Lack of upward mobility by many slum/dwellers has also prevented flow of saving and investment, skills and initiative in having better housing. The Government policies also did not take into account the need of creative nature of house building by the urban poor and stimulation of social development through environmental security, of requisite locations, tenancies, investment capabilities etc. All low income policies of Government have so far been directed to streamline the construction of austerity type of high rise small tenements through governmental efforts. Displacement from agricultural life without integration, into an industrial life bereft of social cohesion, make the problem of slum dwellers more acute superimposed by political, economic and social problems caused by crimes and delinquencies. To dilute/neutralise the effect of high land prices, small-sized high rise apartments, no doubt, save much of the urban space; but low density rehabilitation colonies, near the periphery of the town, may perhaps prove a danger signal for creating new slums after a lapse of some years. Inherent bottlenecks develop in services of transport, school and hospitals. etc. water supply, lighting, sewerage.

Characteristics of Kanpur Slum &

0.15 Most of the old slums, in Kanpur, are rooming houses run by a landlord owning either the slum tenement or the land on which the tenements stand. Virtually all the housing in an 'ahata' is available on rent rather than sale. Rents are low but not in terms of space and facilities available. The 'shatas', in fact, are reception centres for new immigrants as also are security camps for helpless static

inhabitants. Congestion is aggravated by chaotic building lay outs. For example, in Calcutta two-thirds of 'bustee' dwellers have less than 30 sq.ft. of living space while half of the bustee households share water taps with 10-100 other households. Less than 10 percent of bustee households share toilet facilities with more than ten other households. In such circumstances Calcutta has become notorious for all types of epidemics. The position in Kanpur is no better. About 10 percent of rooms in 'Bustees' of Calcutta are work places while at Kanpur a similar picture is seen. Five hazards are also common to both Calcutta and Kanpur.

0.16 Often it is seen that the rich and middle class purchase squatter shacks from the poor and put up their own shacks for establish claims for occupancy or let out on rent or for living. In many cases, hereditary owners of marshes and fallow land by the side of the Ganges, at a modest trading centre, of the early European settlers at Kanpur, laid the foundations by providing cheap means of housing or shelter. The 'ahatas' grew as the city attracted increasing number of merchants and industrialists. With incessant growth in demand for cheap housing, by persons with uncertain incomes, the landlords started renting out the land to tenants, who in their turn put up ramshackles in increasing numbers of families or households room by room. In absence of civic amenities these 'ahatas' became the centres of cholera, small pox, tuberculosis and other public health hazards. Continued deterioration of cheap shelters in inadequate environmental and social senses is the present problems of the industrial metropolis of Uttar Pradesh. Improvement of housing of these slum dwellers has, after all, caught the governmental attention.

0.17 Kanpur Development Authority is already seized with the problem and large plans are under way for renewal and development of the ~~miserable~~^{ble} spots; ultimately, the public sector is to attend whether funds are available or not.

But following such clearance of slums, a danger lurks about spontaneous in-migration of new settlers. It is difficult to persuade the new comers to move out of the areas under clearance or improvement. This requires careful planning and control over both old and new settlements. At present there is no such control. If the policy of the Government is to settle the new comers in selected places, there should be an overall two-pronged action plan for city improvement by discouraging unplanned growth of squatters colonies elsewhere on the one hand and on the other preventing a crisis in the process of urbanisation plans through development of rural areas. Stimulation of rural development at specific growth centres needs to be linked up with urban development.

Case 2. In Calcutta living in Kamrup for twenty or thirty years many of the seemingly independent and nuclear urban families (not to speak of single male migrants), are in fact appendages of extended village families. The ancestral home at the native place still serves as the headquarters of the property group and the custodians of the property. The other households are like satellites located around the place of work or study. Parents and unmarried children live still in the native village while sons and their wives move to the cities. The composition of the family therefore constantly fluctuates. If the desire to improve economic conditions is the major motivating force of rural-urban migration, ultimate family formation in a setting of permanent migration stimulates the housing desires and over-long-term improvement of urban housing.

2) In Calcutta, the migrants from the hinterland camp out in the city slums, sleep on the pavements, group in male messings in ramshackle slums or jute lines in conditions of appalling sanitation. They live and sleep inside the shops and offices, below the staircases of hotels, docks, factories or construction sites, create demands for urban services contributing powerfully to the dramatic deterioration of the urban environment with little concern for civic progress or quality of urban infra-structure or social services.

6.19. In Kanpur it can by no means be assumed (or possible) that slums are composed of rural migrants ^{only since} ~~intra-urban~~ movements from overcrowded inner areas and ~~from other~~ urban areas of India as well flow. Also pave-dwelling is not always feasible because of extreme winters and summers. The spacial planning to achieve social goals in the housing of predominantly rural migrants requires integration of programmes ~~into~~ ^{into} national planning for economic and social development. The psychological and sociological quality of migrants in terms of their integration in the city life needs, innovative organisations and major growth points in national economic development. Anonymity in urban complex and dependence on impersonal relations require tolerance for encouraging socio-economic changes in a city. The method of adjustment to city life is directed by the moral and social succour within the group of migrants. If the rate of acculturation is slow, the survival of indigenous culture prevents the ^{migrants into adaptation} ~~of~~ of habits of city life. Migrants to cities either in search of more education or employment opportunities need planning of housing. In housing there are mainly two sectors - (i) productive and (ii) social overheads which are highly inter-related. Improvement in housing along with that in education, health and sanitation improves the quality of labour and thereby makes the productive sector more efficient by reducing absenteeism through illness etc.

0.20 In Chapter-I, an evolutionary growth of the cities and their types are briefly highlighted, such as the incient pilgrimage cities, politica cities, trade centres, and the modern industrial cities, etc. The period covered is upto mid-1950's. The technological modernisation

Urban growth of urban population and in-migrations in Kanpur city gave very much leading role of providing of Kanpur ^{amenities} came on the map of India, with the advent of British; and the city became the premier and industrial city of northern and central India - having occupied, in 1961, the eighth position in the size of cities in India - due to the central-arch for extension of military rule and cross-terminal transport strategy.

0.21 Amongst the five KABAL-cities, Kanpur held/holds the primary in regard to industrial advance and population size - with the characteristic of the slums, supremacy of masculine population, overcrowding, housing shortages, etc. that the persons per room worked out to 3.8-3.9. In 1940's and 1950's the rate of building construction was very low - being about 1.2 dwelling units per annum per 1000 population. The establishment of the Improvement Trust under U.P. Town Improvement Act 1919 and Kanpur Urban Development 1945, the efforts were made to assess the dimensions of the slum problem besides other problems of the city. The Development Board noted, in 1948, that in 455 ahata, 81,825 people lived and at the same time Municipal Corporation ^{noted} that in 812 ahata - which had 33,385 rooms - lived 123,775 persons (20% of city's population); and again, the ESIC Regional Office as a result of an inquiry concluded that 65.2 percent of the tenements of industrial workers were not fit for human habitation. It was also noted by the Board ^{that} for the working class there was shortage of 92,000

3) Kanpur, Agra, Benaras, Allahabad and Lucknow,

two-room dwellings - and in spite all the efforts, housing shortages, overcrowding, insanitary conditions, poor sewerage system, etc. will continue to hover in the city.

0.22 Population of Kanpur rose from 0.22 million, in 1921, rose to 0.71 million, in 1951; and to 0.971, in 1961. In the meanwhile, one R.P.C. bench-mark study (done by Prof. D.N. Majumdar) based on a Survey in mid-1950's was /
 /accomplished. a decade after on
 effort was launched, for a regional development strategy of the Kanpur Region in 1966-67 by holding a Seminar in Kanpur-jointly by USAID, U.P. Directorate of Industries, and Indian Institute of Technology (Kanpur). It was noted by the Seminar that the administrative-area of Kanpur city is 57,000 acres - of which built-up area was 16,000 acres, in 1960, and the rest was agriculture; and It was projected that the urbanised area will be 41,000 in 1991. Various demographic data, for 1961 have been presented in Seminar(^{Report}) that 78 percent were born in Kanpur district, 18.6% were migrants from other districts of U.P. and 3.47 from the country and abroad; (b) working population was 33.8%: 34.7% in rural area and 32.6 percent in urban area; and 80.6 percent were agriculture labour - participation rate for males 41.6% and 19% for females; and (c) literacy proportion was 31.5% in Kanpur district as against 17.7% in the State.

the data in Majumdar's study say that

0.23 As regards economic aspects/infrastructure of roads, public utilities (including water), housing, traffic facilities and civic amenities are miserable and more so poorer in slum and squatter settlements - where the density per acre was 800 or more - nearly six times of - the accepted standards. Low income households'

proportion/^{for non-migrants} was higher than that of the migrants and of the latter as compared to successive migrants. With the higher incomes, the family-size also increased and also on account of longer stay in Kanpur; for example, the average

family size was 4.36, but it was lowest at 3.34 for lowest family income-bracket of Rs.50 & below per month and rose to 4.02 for income bracket of Rs.51-100'; and so on to 6.80, for income bracket of 'Rs.1001 and above'. But the income of families of non-migrants was high but as they had larger sized families their per capita incomes were generally lower; and even the late migrants families registered a higher average per small family, capita income than the early migrant families because of /

C.24 Kanpur city's ^{slum} population, ^{to 20%} in the rose to about 25 percent in 1950's as compared to last quinquennium of 1940's with variegated environmental patterns and differing civic amenities. Amongst the slum households, 12 percent lived in 'own houses' and only 30 percent of the houses had 'pucca' roofs and walls and nearly two-thirds depended on oil-lamps for light; 62 percent, lived in one-room houses; 35 percent did not have water taps; and in some cases, one tap was shared by more than 50 tenants. The urgency for providing liveable dwellings was acute but the land was not available near the work-places where the affluent classes lived. Slum dwellers lived in narrow lanes dotted with 'kutcha' houses, polluted wells, damp ground, highly - inadequate latrines, and wide gap ^{yawned} between social infrastructure situations and the locational residential patterns of the town. Under the Subsidised Industrial Housing Scheme of 1952, in the first phase 12 slum areas were selected; of which, in 11 areas surveys were made by Kanpur Development Board. Another survey, in 1952, of 31 shatas was done by the U.P. Office of Town and Village Planner; and some conclusions for the shape of strategy were reached in regard to 'distance, from work-place', house design, number of one-person houses, playing area, elementary school, shopping, etc. for developing housing clusters.

0.25 In Chapter-II, dynamics of the housing supply activity is presented for the slum and squatter settlements for the period of nearly twenty years (mid-1950's to mid-1970's). This period begins with considerable proper policy watershed because of basic landmarks of: (a) a first scientific survey, about the social contours of Kanpur city, accomplished by Prof. D.N. Majumdar; (b) inclusion for the first time Slum Clearance and Sweeper Housing Scheme¹ as a part of 'Second Five Year Plan -1955/56 to 1960-61', with an allocation of Rs. 200 million; and (c) background of the institution of 'Ahata Bye-Laws' - under Section 15(2) of the Kanpur Urban Area Development -1945 as sanctioned by U.P. Government in April 1959. The decennial growth rate of urban population (which had been lagging behind of total population growth during 1941-51 and gave a lead - and reached a sustained growth of 35-40 percent per decennium); and in this sweep raised the number of larger Class-I towns (with population of 100,000 and above) from 76 in 1951 to 115 in 1961 and the total urban population from 48.2 percent in 1951 and 41.8 percent 1951; this also escalated the density of population in metropolises. Subsequently, developed in further gap urban structure of housing, essential and community services (of water supply, sanitation, bathing facilities, electricity); residential areas were filled to suffocation point - developing unhealthy surroundings in and around ramshackled and unauthorised dwellings - introducing an active vicious circle of slums generating their progenies. In spite these maladies developing, the 'housing' sector remained an incessantly neglected sector in the strategy of quinquennial plans.

0.26 The legislative tool of Slum Improvement and Clearance Act(s) 1956 and institutional instrument of Slum Boards by a couple of States - supported by Subsidised Industrial Housing Scheme (since 1952) - in the

5-year plans did not cut much ice notwithstanding ~~various~~
subsidy elements right upto the final 5th Plan.
Resultantly upto the end of 1974, out of about 150,000
tenements raised under Slum Scheme, in Kanpur 5,924
tenements were built at the cost of Rs.30 millions.

0.2 For injecting relevance to the changes in the quality of housing levels of living, meaningful indicators that have been thrashed out by various organisations; are presented. However, those developed by the U.N. and its Specialised Agencies are sharp and scientific with a 'complex' divided into three groups: (a) four basic indicators; (b) five supplementary indicators; and (c) thirteen subsidiary indicators.

Base Situation of Slum and Squatter Settlements in 1975-76 - 0.2 In Chapter III the base situation available in the preceding year to 1976 and the strategy for sample design have been presented and discussed. On the eve of the 6-year Integrated City Development Programme for Kanpur Metropolis (1975-80), the estimated slum and squatter population, in 1975, was about 0.5 million - living in Ahatas and squatter colonies; in 'ahatas' of population 'upto 200 persons', 82 percent of the population lived and rest in ahatas of 'more than 200 persons'. The number of ahatas were more over 300 - of which survey data were available for 65 ahatas. The Survey conducted by the I.I.P.A. and the data collected do not relate to proportions of population living in ahatas according to population sizes of ahatas; the sample taken from small ahatas was 70 percent in place of 82; and sample taken from big-sized ahatas was 30 percent. In the sample coverage, 96-97 percent of the respondents belonged originally to districts of U.P. and only 3-4 percent belonged to states other than U.P.; this offered more homogeneity in culture out of the Universe. The Household Schedule was canvassed to 1000 households: 800 slum households, and 200 squatter households. It represents about one percent of about total 100,000 slum and

squatter households and 0.2 percent of the slum and squatter population. The queries in the Schedule were pertinent to the objectives laid down by the sponsoring agency (namely, the National Buildings Organisation). The analysis has been carried out from these data in the following Chapters (IV to IX) on: Migration, housing conditions, income levels, health and planned parenthood, transport facilities, attitudes, of slum and squatter households.

Analyses
of Data
emerging
from I.I.R.
Survey

0.29 In Chapter IV, the phenomenon of in-migration in the bigger towns (with a case study here of Kanpur city) has been analysed into 'rural-urban' and 'urban-urban' migrations. Earlier, such studies were done, in 1950's, for 21 cities under the sponsorship of the Research Programme Committee (of Planning Commission, Government of India); and the survey strategy followed by the researchers in some of these surveys has been detailed in Annex 4.01; which includes details about the survey conducted in mid-1950's in Kanpur city. In all, the composition origin, family/household sizes, the migrations in phases by family members have been studied for the period of about 15 years (1961-76) in regard to migrant population in Kanpur city. It appeared that out of 1000 sample slum and squatter households, nearly one-fifths (or 20 percent) had moved in Kanpur city; nearly one-third of the total migrants had come alone - except for one-tenth of these with wives; 45-46 percent of the slum and squatter dwellers lived in Kanpur since birth; one-seventh had come 'before 1947'; and another one-sevenths 'between 1948-60'. A large majority (that is, nearly three-fourths) did not move out from their first settlement (either in slum or squatter colony) and continued these undisturbed.

0.30 In Chapter V, housing conditions prior to shifting from native places to Kanpur and thereafter as also the differences in the housing conditions of slum dwellers vis-a-vis squatter dwellers. It is interesting to know that of squatters the housing conditions were relatively better vis-a-vis

slum dwellers in respect of ownership, living space, smaller household/family size and room density, rent charges, co-tenants/sub-tenants, burden, self-repair, etc. but not in regard to doors and windows, drains and water-logging, lesser animal inmates, neatness to roads, garbage disposal, latrines, etc. On a different scale, the smaller households had lesser space to live than bigger households; in all probability, two-thirds of the squatter households and 55 percent of the slum households' doors and windows; two-thirds of slum-dwellers and three-fourths of squatter households had no sanitation facility and had presence of water-logging; 78 percent of the slum households were paying rent; and only 17 percent of the squatters; and 27.5 percent of the households kept co-tenants/sub-tenants; etc.

0.31 Only 33 percent, are served by 'pucca' roads, and 87 percent, by 'kutcha' roads; 50 percent have 'pucca' drains and 20 percent are not served at all. Only 28 percent get water supply through 'tap'; bath room facilities, are available to only 8.9 percent; 34 percent, have 'latrines' at a distance of 'more than 100 meters' and pressure on a latrine exceeds 'over 100 persons' for 37.5 percent of the households.

0.32 In Chapter VI, slum and squatter family/household income-levels, sizes in according to number of persons, etc. have been analysed by dividing households into six income-classes of 'below Rs.50' p.m., 'Rs.51-100', 'Rs.101-200', 'Rs.201-400', 'Rs.401-1000' and 'over Rs.1000' -according to non-migrant houses, pre-1940 households, and post-1940 households. Broadly, the income structure of the families is dependent on size of the families: low-income families have small-sized family, and high-income families, large-sized families; again, non-migrant families were large and therefore with low per-capita income, followed by pre-1940 migrant family, with medium size family and medium-sized per capita income; and post-1940 migrant family with small-sized

family and high income per capita. Poverty line related to per capita income below Rs.50 p.m. in the background of about 57 percent of the families in slum and squatter settlements were having 'upto Rs.30 per month'.

0.33 Illiterates, in slums, were 50-51 percent and 66.5 percent in the squatter colonies. Employed work-force was 24.6 percent, of the slum population in slum areas; whereas it was 32.5 percent, in squatter areas. But more educated persons were unemployed; for intermediate pass unemployment proportion, was 67 percent; for graduates, 57 percent; and for 'post-graduates', 37.5 percent. It also turned out that 70 percent of slum and squatter workers were below the poverty line. Employment proportions in secondary and tertiary sectors were 47.6 percent, for slum-dwellers 44 percent, for squatters, and 47.6 percent and 51.8 percent for squatters; and 3-4 percent, were employed in the primary sector both for slum and squatter dwellers.

0.34 Expenditure classes are eight: upto Rs.100 p.m., Rs.101-150, Rs.151-200, Rs.201-250, Rs.251-300, Rs.301-500, Rs.501-1000, and 'over Rs.1000'. However, only 9 percent were submerged in last two classes (or Rs.501 and above) 42 percent, in classes V and VI; and 49 percent, in the first four classes 'upto Rs.100 and above upto Rs.250'. Thus, there is more inequity for squatters than the slum-dwellers and also as compared to all the Kanpur residents and above all the India's urban population. Consequently, savings rates were low or 'nil' for most of the households - only 491 out of 800 slum-households ~~were~~ savers and only 80 out of 200 squatter households. Again, only 20 percent of the 446 savers (out of 571 savers) had accumulated savings of 'Rs.2501 and above'. Borrowing was, therefore, extensive mostly for current expenditure and ceremonies, but occasionally for illness and business - but it however, depended on credit-worthiness - and only 565 ^{were} borrowers; but only 3-4 percent of households,

had accumulated borrowings of 'Rs.2501 and above'. The main source for borrowing was money-lender - followed by friends and relatives. But 40 percent of borrowers paid interest rate ranging between '25-100 percent or more'.

0.35 In Chapter VII, questions of health and planned parenthood are analysed - based on data of the 1976 -Survey. Basically it is true that slum and squatter population rose from 20 percent on the eve of 1950 to 30 percent in early 1970's and it is estimated at about 35-percent in mid-1976; this in turn raised the menace of over-crowding, poorer levels of infrastructure of community and essential services - resulting in more frequencies of ill-health, general and infantile mortalities. But poor attendance at public hospitals/dispensaries - pushed the sick at the door of private clinics. The incidence of illness was, nevertheless, less in squatter colonies as compared to slum colonies. Planned parenthood also got preferential hospitality in slum and squatter settlements by about two-thirds of the households. As a result, the birth rates were low at 1.5 percent but death rates were also high at 1.4 percent - therefore net natural growth rate was 0.1 percent ^{primarily}. Hence the increase in slum and squatter population was all due ^{to} to in-migration in Kanpur city.

0.36 In Chapter VIII, question of transport facilities and expenses' incidence on transport services by the workers (from home to work place and back) and for school-going boys (from home to school and back) is discussed ^{and} also mobility away from Kanpur and also of remittances despatched. In Kanpur, due to overcrowding, out-dated transport, and shortages of road-mileage, congestion in transport system cause a number of inconveniences - leave aside the incapacity to spend on transport. However, for two-thirds (or even four-fifths) of the households the delivery of services (of transport, education, shopping, post and bank offices etc) are within one kilometre; and for 58 percent the work places

are also within one kilometre. Mobility or immobility from Kanpur is a function of no-ownership or ownership of 'immoveable property'. 80 percent of the slum and squatter households have mentally decided to stay on in Kanpur though only about less than 30 percent have immoveable property in Kanpur, perhaps because a very few households have any sustained interest in native places whence they migrated. ^{This is} ~~that~~ also revealed by the fact ^{that} 16-22 percent of the slum and squatter households send remittances regularly to their relations in native places.

0.37 In Chapter-IX, the attitude of the slum and squatter households towards the house-size (in terms of number of rooms), has been inferred from consumer reactions, according to biological needs of the families/households.

But unfortunately the needs for the house-sizes and the household-sizes are extremely mal-adjusted and the situation is highly inequitable. Notwithstanding that about 30 percent of the households were ⁱⁿ need to shift in new areas with prospect of better housing, 70 percent did not see any difficulty to shift to better houses and even pay the higher rent; and even 10 percent were inclined to leave Kanpur to get better conditions of living elsewhere. The technique of 'self-help' does not enamoured about 80 of households to build better houses. They preferred indigenous culture of entertainment (vis-a-vis modern entertainment of cinemas) such as folk-lore, religious function - of Ramayen etc.; and only 25 percent had preference for cinemas. Nonetheless, the ethos of trade union milieu made them politically conscious - and 64 percent gave preference for Congress the ruling party when survey was conducted in 1976; but perhaps in 1977, they must have voted for Janata - with higher percentage of votes, since, in 1974 U.P. Legislature elections, 80-90 percent of them did cast votes.

0.38 In Chapter X, deals with "Policies, Programmes, and Perspectives" in regard to likely trend in the growth of slum

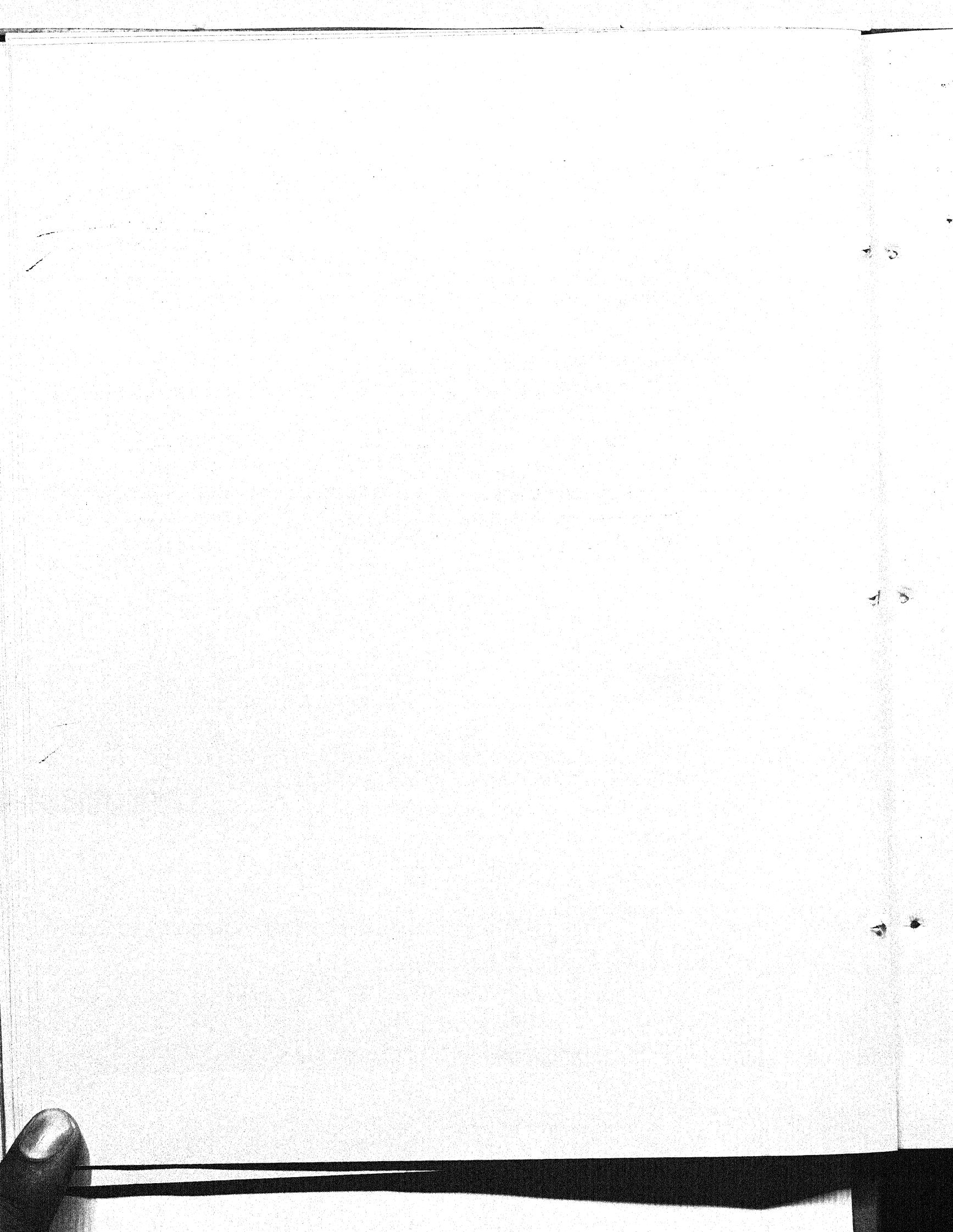
and squatter settlements, if left to 'laissez-faire' process up-to the year 2001. As all this depends on the parameters of the total population of the country, if the proportion of total urban population - and share of '100,000 + cities' in urban population as also the number of such towns - including 'million (+) towns'. The needs of investment depend on urban infra-structure of community and essential services in urban areas, residential units supply and residential estates - including the elimination of accumulated back-logs and regular timely supply for growing current needs during the next 25 years. This will also require for establishment of various material-producing industries as inputs in urban infra-structures as raw-materials and labour supply for all these purposes of technological, technical, engineering and building trades required both in the industries as also at sites of construction.

0.39 Estimated total investment required during the next 25 years (as phased for five-year periods) will be around Rs.9,570 millions. But as the 'ability to pay the rent' and low or nil 'propensities to save' of quite many slum and squatter households, the capital subsidies to be devolved would range upto 100 percent for more than 50 percent households - and for another 25 percent households would range between 21 percent to 86.5 percent. The total capital subsidies in Kanpur city will be Rs.813.5 million in next 25 years, and for all the eight 'million +' cities, Rs.5,000 million; and for every five-year plan period about Rs.1,000 (or Rs.100 crores). The capital cost of Rs.9,570 millions millions is distributed as Rs.6,985 millions for inputs of building materials and Rs.2,585 million for 'labour wages'. Again, the building materials cost of Rs.6,985 millions is divided on major building materials as: Rs.957^{on steel} millions; Rs.1,254 millions, on timber; Rs.1,723, on cement; Rs.1,627 millions, on bricks; Rs.670 millions, on sand; and Rs.765 millions, on aggregates. The building labour's cost of Rs.2,585 millions will be distributed as:

(x-vi)

Rs.1,435 millions for skilled labour; and Rs.1,150 millions for unskilled labour - generating employment volume of 0.156 million man-years, in the first plan; 0.179 million man-years, in the second plan; 0.2 million man-years, in the third plan; 0.216 million man-years, in the fourth plan; and 0.246 million man-years, in the fifth plan.

0.40 To meet the capital cost of developed land, dwellings and community and essential services, it is possible to mobilise funds domestically of Rs.9,925 millions as shown under Items 1, 2, 3, and 4 under Table-10.14. Reliance on international flows of funds from foreign governments and international organisations to the extent of Rs.2,30 millions as detailed under Item 5 of Table-10.14. The itemwise and planwise financial figures for the 25-year period (1976-2001) are detailed in Table-10.14.



CHAPTER-I: Kanpur City - A Review in Retrospect (upto mid -1950's)

1.01 Cities in ancient India originated either as pilgrimage centres or political capital, mostly situated by the side of big rivers. The social structure of these cities was static and hierarchical since the social relations amongst various groups were guided by inter-caste considerations and social - economy rooted on household industries, handicrafts and activities of commodity traders. The cultural activities centred round temples, mosques and religious festivals. Political activities followed the kings' likes and dislikes. Although scholars, artists, artisans, warriors did migrate to cities for royal patronage, the claim for better life and existence had quite many constraints. The building roads, railways, post offices, creation of health and sanitation facilities, education, administration system, firms and factories gave new dimension to such cities. Inland cities developed, largely, according to needs of manufactures, commerce, defence, and administration. Trade expanded the area of the commercial hinterland, and occupational activities were structured by development of secondary and tertiary sectors of economy. Industrialisation, urbanisation, and technological modernisation nevertheless brought in economic disparities in people and their residential areas; new rural migrants lived in areas which suffered from lack of civic amenities and degraded physical environment. The social and mental roots of new migrants remained in villages although they achieved social mobility for survival in new surroundings.

1.02 With rapid economic growth social change followed inevitably. New development opportunities in urban setting, collective services such as health, education, utilities could not maintain a similar growth rate to supply residential areas of low status immigrants and a good portion of old migrants became accustomed to live

without civic amenities. Following transition from under-development to development and from tradition to modernity tensions, dislocations and inadequacies, to transform the stagnant society into dynamic modern society, did develop. Growth of big urban centres gave rise to the formation and expansion of new social groups consisting of skilled and semi-skilled artisans and the working class. This engendered promise of economic and social mobility, ~~however~~, which offered a better scope of survival.

1.03 The gains of economic development have largely gone to those social groups, who took advantage of the modernisation process. But a great majority of rural migrants, particularly new migrants, remained on the border of modernisation and were not able to reap the fruits of development. This created wider disparity in levels of living, income and development of human faculties. During the process of economic and social change, inadequacy of skills, education and abilities restrained a large section of migrants to get entry into the attractive employment opportunities and better social status. Large quantity of scarce resources spent lately for improving the quality of city life did not touch the inhabitants of slums and squatters' colonies who remained outside the socio-economic modernisation. These settlements in general, continued as the localities of low income and low status immigrants and gave no better shelter even for the present needs of the poor-in absence of adequate housing programme for the under-privileged. Cities are growing in population- both on account of natural increase, and growth of immigrants. But the latter is more marked-and the slums and squatters' colonies absorb the major portion of increasing flow of rural migrants, despite environmental degradation and inadequacies of social services and community facilities in these colonies.

1.04 After the advent of the British, Kanpur came on the map of India as the most important industrial city of

Northern India; incidentally, it is the largest city of the largest province of India (that is, Uttar Pradesh); a few decades ago, it was premier industrial metropolis of northern and Central India. It ranked eighth among the 113 cities (with population of 100,000 plus), in 1961, and retained the same position, in 1971, but it was among 142 cities (with population of 100,000 plus); further, based on the strength of the labour force in the 'manufacturing industry', Kanpur occupied fourth position in 1961 - the first three being Bombay, Bangalore and Ahmedabad.

According to proportional size of employment, in 1961, secondary sector had 42 percent of the labour force - followed by 31 percent in service occupations, and remaining in Trade, transport and communications; again, within the secondary sector, manufacturing sector had a share of little over one-third and the rest was subsumed by construction, household industry and mining.

Kanpur
city -
factors of
early Deve
lopment

1..05 Early development of Kanpur, as a city, had its origin in being inherently suitable for extension of the military rule and for which it provided a central cross-terminal for the transport strategy. It was in the first decade, that industries grew what attracted rural immigrants as the employment opportunities augmented. Thereafter breeding of slums developed - being well-connected by the Northern, Central North-Eastern Railway - both broad gauge and metre gauge and road haulage on the Grand Trunk Road Line. National Highway No.25 connects Lucknow and Jhansi as also the Ganges crossed/negotiated by an independent bridge. Now it also has an Air terminal. The density of population in the city had increased to 219, in 1921, from 178, in 1911, as an impact of First World War.

Town Improvement and Development Acts

1.06 The enactment of U.P. Town Improvement Act 1919 - brought in establishment of the Kanpur and Lucknow Improvement Trusts in the same year followed by Allahabad Trust in 1920; but Agra and Varanasi Trusts were established as late as 1949 and after; ^{five} the/towns are now called KABAL towns. The Act was not a town planning law, and rather it was oriented towards piecemeal execution of schemes of improvements and extension without any framework of land use. Explosive increase in Kanpur city population, during the second world war and after due to wave of immigration of refugee population following Partition, the institution of Trust became out-moded; and the Act of 1919 was replaced by a Development Board - under Kanpur Urban Area Development Act 1945. The main features of the new Act were: (a) a full-time President with the rank of a Commissioner or a public man of Minister's rank (b) the members of the Board were broad based and included District Magistrate, Chairman of the Cantonment Board, Labour Commissioner, Chairman and three members of the Municipal Corporation and 16 non-officials nominated by the Government representing various interests; (c) Water supply sewerage and Sewage disposal were to be the direct charge of the Board. Nevertheless the raising of revenues and collecting of water sewage charges continued to be the responsibility of the Municipal Corporation. The changes were made with a view to eliminate lacuna in the mechanism of the municipal corporation; however, on the town-planning techniques and execution of work for towns development was almost no departure from the 1919 Act - was made continued to operate for other cities of U.P. also.

Growth of Immigration and slums

1.07 The inflow of immigrant population - which made the population Kanpur district (and more in its urban sectors) more 'masculine and overcrowded'. This brought about shortages in housing quantitatively and

and quantitatively in terms of providing housing needs. The materials of walls and roofs, naturally were also poor. Resultantly, there was a growth of slums and squatter settlements in Kanpur - in which mud was the prominent material for the construction of walls and cowdung for the floor. Further, the average size of the urban households was 4.5 persons in 1961, as against, 3.9 in 1951; and that for rural households the average sizes were 5.2 and 5.1 for the corresponding years (that is, 1961 and 1951). Quantitative statistics on housing indicated that there were 1.7 persons per room in the rural area of Kanpur district, and 2.6 persons in the urban areas (leaving aside the quality of houses). It is agonising to note that in one-room houses, mostly in slum areas the average number of persons per room worked out to 3.8-3.9 in urban areas - which reflects on the presence of acute congestion in living accommodation.

1.08 According to a 'survey' done in 1947 - which commenced on 1946 housing situation - it was averred by the executive officer of Kanpur Development Board, that 'the extent of overcrowding could be judged by the incredible average figure of 32 persons per house in the present built-up area'. The situation worsened - according to another survey conducted in 1953 - as there were 36,551 houses within the municipal bounds (excluding the cantonment) where the population was 660,225, according to 1951 census. The imbalance between the development of housing needs from 1920-1950, when the population grew from 0.22 million in 1920 to about 0.85 million in 1950, the rate of building construction was disquietingly

1)

poor at about 1.2 houses per annum-per 1000 population as can be seen from the data below:-

Table 1.01 Building constructed in different time-phases during 1920-1950.

Type of construction	Time phase 1920-33	1933-38	1938-43	1943-49	1920-49
Bungalows, Houses and factories	2,108	2,964	2,630	977	8,679
a) Ahatas	186	261	180	122	749
Quarters	3,228	6,055	2,057	4,258	15,598
Total	5,522	9,280	4,867	5,357	25,026

a) An 'ahata', according to the Kanpur Development Board bye-laws is a group tenements not less than nine in number and each of them having two or less than two rooms and are intended for human habitation.

Source: Social Contours of an Industrial city - Social Survey of Kanpur - 1954-56 (By Dr. D. N. Mazumdar Asian Publishing House - 1960) - page -34-35. On page 35 it has been stated that to reduce the problem to more precise terms, the number of houses in the city increased only by 25,026 since 1921, whereas the population in the same period increased by about 630,000.

1.09 However, in 1947, after an Aerial Physical Survey - comprising detailed photographs and civil survey - drafting of a Kanpur Master Plan was initiated

1) Under the Kanpur Urban Area Development Act (Arising out of the recommendations of Edward Souter Committee of 1944), the Development Board was established in September 1945 replacing the Kanpur Improvement Trust. The Board, besides taking over the functions of the Improvement Trust was also assigned functions regarding roads, transport services, drainage, water works, more sources of finance by revenue raising powers through betterment tax, stamp duty, floating of loans in the open market. In 1946, the Board instituted detailed laws about the 'ahatas' and tenements- which required their owners to make certain improvements. The Board also provided sewerage and water facility in new labour colony and also laid, in that year, a sewer between Kalpi Road and Ganga Canal, Railway over-bridge at Hamirpur crossing to inject fillip to the growth of the southern part of the city. The work on the Master Plan was consummated in 1948, and 1200 houses were built in 1948-49 in Govindpur as also 33 flats in Nachgarh Birhane area for Harijans, 104 quarters for workmen in waterworks and 122 ahatas: actually the quarters constructed were about 4,800.

with speed but without statutory support. It became through the Development Board an instrument of urban development guidelines for deciphering of land uses and working out alignment of roads. The work of the Board was facilitated by its extensive and continuous land acquisition and development activities which aimed at supplying the land needs in Kanpur city of the State, Central government and private companies and other agencies, such as university, IIT, Institute of Sugar Technology, new industrial areas, and new link to National Highway-2. This planning was deemed to serve a population of about 1.4 million during the next 20 years - say around at the commencement of 1970's. The Kanpur Electric Supply and Railways also worked out their future plans in reference to the urban development guidelines of the Master Plan. However, traditional by-laws, conditions of lease - deeds set-backs covered area etc, continued unchanged under the joint aegis of the Municipal corporation and Development Board and this proved a drag.

1.10 The Development Board had noted that 81,825 people were living in 455 shatas, in 1948, and the municipal medical department observed the same year that 123,775 persons were living in 812 shatas, which had 33,385 rooms - and these figures revealed that about 20 percent of the population lived in slums - though the ESIC's Regional Office concluded as an outcome of an inquiry that 65.2 percent of the tenements of industrial workers could in no way be said to be fit for human habitation. The Development Board's effort and enthusiasm towards "slum removal and improvement", during the 1950's was short-lived - though the government's grant of Rs.50,000 for ridding the city of the "unhealthy hovels" in 1951-52 along with the Board's own expenditure budget of Rs.100,000 could not be utilised as the total expenditure for the 'slum-areas' upto April 1953, could reach only to Rs.24,000/- only and in that month the Prime Minister lamented

in anger to burn down the slums. But for the exhortation by the Prime Minister, 'burn down the slums;²⁾ the big labour colonies in Bahapurwa (old Kanpur) each capable of housing a few thousand families (with drainage, lighting and water supply facilities) could not have come up in the first quinquennium of the 1950's. Nevertheless, the Kanpur city got incessantly strewn with more and more slums since the growth of new slums and squatter betterments on the one hand and on the other fast deterioration of the old housing stock went unabated and it far more outpaced the supply of new dwelling units required anew for increasing waves of natural growths through existing population and the inflow of immigrants. Conclusively, in 1948 itself, a 'civil survey' undertaken by the Board noted that for the 'working class' itself, the new housing supply shortage should be of 92,000 two-room dwellings - which, it was also felt, would take several decades inspite of quite many encouraging works from the central government for subsidised housing schemes: and the shortage of housing, overcrowding insanitary conditions³⁾ etc. will continue to be an inescapable characteristic of the city.

2) None else could have been the reaction of the Prime Minister when "overcrowding (was) to the suffocation point, existence of 'Ahatas' with most unsatisfactory conservancy arrangements, insufficient number of public latrines, urinals, pail depots, rubbish depots, and the broken down condition also of drains, lanes, sewers, dry conservancy system in a majority of houses, inadequate arrangements for removal of rubbish and night soil....Some lanes are huge dirty dairies... Sweepers had to take night soil into the open drains and gully pits. The city had only 94 rubbish depots and 100 dustbins.....Thirty lorries work on removal of about 600 tons of rubbish a day...."

3) A committee appointed by the Board in 1946, on "Public Health and Sanitation" summed up: 'The presence in an industrial city like Kanpur of numerous factory chimney's emitting abnoxious gases and soot cannot be conducive to the health of inhabitants....most.....drains, fermenting cess-pools and gigantic piles of garbage mixed-up with excreta, surely it would not be correct to dignify by the name of "Air" the substance one breathes here....neither food nor water can be kept free from the omnipresent bacteria....Our visits of inspection are so overpowering that for days we lost all appetite for food.'

1.11 On the fringe of the city, several village type settlements - in particular on the southern part - which were included within the municipal limits - did not have civic amenities - including access to central water supply, drainage, conservancy facilities. The only interest perhaps the municipality had was to collect rent from the owners of a few rich and luxurious houses as substantiated by the curve of tax revenues from 'annual value of buildings and lands' which grew six times in 1950-51, to Rs.1.6 million from Rs.0.254 million in 1940-41: however the house tax formed about one-fifth, in 1950-51, of the total revenue as compared to less than one-tenth, in 1940-41.

Sanitation & conservancy 1.12 Even in newly developed areas like Kaushalpur, Juhi Khurind, Gandhinagar, Sisamau, Aryanagar and Ghataiya have no pail pots - though the assumption at the time of construction was that all the houses, in these areas, will have flush latrines: but actually there are 80 percent dry conservancy latrines from where the night soil flows to drains. Also in the city 80 percent of the house latrines have dry conservancy system. There is extreme shortage of public latrines - and there were 60 public latrines at the time of Independence when as early as 1867 there were 20 public latrines when the population was one-tenth of the population at the time of Independence - indicating a snail's pace in providing of public facilities than the population growth resulting a sizeable city's population uses 'open land' (4). The sewerage system which was designed for 200,000 people is overstrained. Resultantly, the state of health of the city is frightful ensuring a high mortality rate and more so the infantile mortality.

4) Railway tracks and outside areas of cubicle public latrines prove the welcome sites - and in the latter case as the cubicles (in wretched state of repairs) being engaged, the Nature cannot wait.

1.13 However, in post Second World War and post-independence periods, the city did not fare well because its hinterland is not bestowed with raw-materials - in particular not hospitable for heavy industries - which did not allow Kanpur high priority, in the scheme of planned social and economic development. Nonetheless, it is argued that non-metallic minerals (such as clay, limestone, talc, quartz and sand) are not in short supply - and given proper climate, industries for manufacturing of bricks, cement, ceramics, crockery, glass insulators and refractories could be plausible. In addition, the non-food-consumer goods like cosmetics, oils, tobacco and agro-industries such as small-sized farm machinery, fertilizers, pesticides have also good prospects. However, the static or degenerating factors were more rooted in the decelerating the rate of providing transport and communication infrastructure and the slow pace in the provision of institutionalisation of the supply of credit, trade, regulated markets etc. which operated as an amalgam of bottlenecks. So also Kanpur had sizeable doses of industrial disputes - in particular in the cotton textile industry - and that dampened the growth, in employment in this industry, since 1951. The absence of facile spontaneity in the growth of diversified industry played a constraint in continuing the growth employment potential.

1.14 Income levels, levels of living, efficiency etc. were at a stake all the time in the insanitary surroundings in the residential estates -full of slum and also in and around the factories of the industrial workers, who formed conspicuously large part of the slum dwellers. To add to this, the road condition⁵⁾ was spalling and transport system to commute the distances from the residential areas to the work places was strewn with various hurdles to emasculate the workers' efficiency to a great extent - reducing further the real wage-levels- leave aside the sub-marginal earnings as factory workers surrender by a large number of unemployed workers and floating migrant labour. One thing that is needed is the creation of environment in which the vast mass of human resources can become useful partners in the society. Enlargement of housing and public utility services can offer a fruitful benefits to the factory hands, hawkers, peddlers, petty traders and others. in generating greater productivity not only in their occupations but also in maintaining better social cohesion.

1.15 An anomaly of the wide powers given to the Development Board on the one hand and allowing the privilege of raising and collecting of revenues remaining with the Municipal Corporation led to frictions. The revenue receipts of the Kanpur Municipal Corporation was Rs.0.26 million in 1940-41 and had grown to Rs.0.75 million in 1951-52 and the expenditure for the aforesaid two years was Rs.0.39 million and Rs.0.75 million. During the same 10-year period/rose from 0.5 million to 0.85 indicating an increase of about 70 percent. The limited rise in the Municipal budgetary resources, unable to finance the commensurate infrastructure for civic amenities, and supply for housing needs falling short conspicuously

5) On March 31, 1950, the then Governor of U.P. (Shri H.P. Mody) observed in Kanpur; 'If there is any good road in Kanpur, I have yet to discover it'. To support it is enough to note that the expenditure on new roads 'construction' in 1946-47 was Rs.3,98,018 and in the year 1949-50 and 1950-51 were Rs.3,57,700 and Rs.367,346 only and 'maintenance expenditure on 'roads' Rs.53,182 in 1946-47 and Rs.19,533 - by the Kanpur Municipality.

generated conditions of 'overcrowding', since the building activity had lagged behind during the Second World War period. The Master Plan took note of the problem of growing congestion-particularly in the central business district (CBD) of Kanpur city and observed that "76.27 percent of Kanpur's total population, now live in the old city area ----. Here in connection with commercial centres, markets, and inter-related workshops and power establishments live approximately 3,00,000 people with a density in some places as high as 800 persons per acre which is nearly six times the maximum accepted standard (Government of India requires for labour housing not to exceed 138 families per acre)"

136 It is, however, true that the Development Board was given the power to raise some of the revenues - besides inheriting the powers enjoyed by the city Improvement Trust such as, the levy of betterment tax and a part of the stamp duty, and floating of loans in the open market. But Board was also obligated to develop and run the city transport at cheap rate since it was not feasible for the tenants in new labour colonies to negotiate to distances to the place of work; this as well required pumping in of investment for developing roads. Lack of finances proved a hindrance in creating housing and transport facilities. The above constraints obliged the Development Board towards gradual shifting of factories and work centres -including markets - to the south of the city-where the Board launched by the Southern City Extension Scheme. But/the running of buses, in 1954-55, its net earnings came down to Rs.1 million

57) In 1947, in Kanpur, there were 32,963 houses - 30,001 in the City Municipal Area and 2,962 in the cantonment-to cater to the needs of a population of 0.88 million (though population declined in the post-war recession period); the extent of unabated overcrowding was so alarming that average figure of 32 persons per house in the built-up-area was common (Refer to D.N. Mazumdar's "Social Contours of An Industrial City, page 33, Asia Publishing House, 1960)

7) Ibid: page, 35.

as against Rs.1.36 million earned, in 1949-50 with a fleet of 37 buses; the workers preferred to walk or use cycles for going to work-place.

1.17 The city of Kanpur continued to grow slum conditions^{As stated earlier in para 1.10} and the process of 'slums begetting slums' accelerated.⁽⁶⁾ Around 1948, in 455 ahatas (or tenement houses), the population housed numbered 81,825; and in a total of 812 ahatas lived 1,23,775 persons - which in all had 33,385 rooms with a room density of about 4 persons. This also provides a dimension that at that time about 20 percent of the city's population lived in the slums of ahatas. Besides the menace of overcrowding, insanitation in 'ahatas' (or slum areas) grew proverbial in the city. The Development Board summed up its findings in its report 30 years ago - in 1946 that "-----numerous factory chimneys emitting obnoxious gases and soot cannot be conducive to the health of the inhabitants.-----the city can boast of the most pestilential drains, fermenting cess pools and gigantic piles of garbage mixed with excreta. -----". In such poisonous atmosphere, it is obvious, neither food nor water can be kept from the omnipresent bacteria ----. Some of the places that we have seen during our visits of inspection are so overpowering that for days we lost all appetite for food". In regard to 'water supply' at the time of reporting, the Board noted that 25 per cent of city's population had no access to centrally supplied water. The Board took note of conservancy arrangements; they were appalling with inadequate number of public latrines, urinals, pail depots, rubbish depots; in Juhi Notified Area, covering 2.27 sq.miles, there was only one pail depot. In the newly developed areas of Kaushalpuri,

(6) According to Development Board bye-laws, an 'ahata' is a group of tenements not less than nine in number and each of them having two or less than two rooms intended for human habitation. (Also refer to Ahata Bye-Laws and also paragraphs 2.17-2.24 of this Report).

Juhu Khurd, Gandhinagar, Sisamau, Aryanganagar, and Gutaiya there were no pail depots; in the city, as a whole, 80 percent of the house latrines being dry conservancy type. The public health situation was alarming, the infantile mortality rate was 248.17 per thousand in 1951-52; and death rate, 24.92 against the birth rate of 31.01.

1.18 As regards traffic system, it can be averred that most of the net work of roads in Kanpur, in 1949, with road mileage of 150 miles only was medieval, and was at cross with the volume, intensity and variety of modern traffic conditions - and suffered from narrowness, insufficiency, sideway encroachments, meagre footpaths, absence of vehicle parks, railway crossings on busy roads etc.

1.19 There was a number of village-like settlements on the fringe of the city - particularly on the south, which did not have any civic amenities; these settlements are age-old, but were not embraced by the Improvement Trust's schemes- and were included/city ⁱⁿ municipal limits only in the 1950's. In these areas neither there was central water supply, nor street lighting, conservancy facilities; and oddly prevailed of no civic amenities but the tenuous link of collecting of rent by the civic administration.

1.20 In 1939, in Kanpur, the total number of industrial workers was 55,814 (base index=100), it grew to 116,252 (Index=208.3), in 1945, but declined to 68,832 (Index=123.3), in 1953. For those three years, in the State of U.P. the industrial workers were 159,738, 275,468, and 206,740 respectively in comparison for the corresponding years Kanpur's proportions to the number of industrial workers in the State were about 35 percent, 43.5 percent and again at 35 percent. The spurt in number and proportion in the mid-1940's was caused by the Second World War - when Kanpur factories hummed with producing supplies urgently needed for the Indian army in the country and in war-theatres abroad; the post war period developed retrenchments and unemployment

and lay-offs; the registration in Kanpur Employment Exchanges climbed to 65,843 in 1954, from 17,125 in 1946- and unemployment plagued both the skilled and non-skilled factory workers. A survey carried out in mid fifties (1954-56) by Professor D.N. Mazumdar of Kanpur, found that the population of the city consisted of (1) non-migrants to the city; and (2) migrants to the city. The former formed 36.4 percent; 22.71 percent of '14 years over' and 14.69 percent of '14 years and below'; and the latter consisted of 63.6 percent. The latter group (that is migrants) also had a time-span of stay in the city and they were 32.26 percent who came before 1940; 10.79 percent, between 1941-45; 11.75 percent, between 1946-50; and 8.80 percent, between 1951-55. (see Table 1.02). It implies that during any quinquennial, roughly about 10-percent of the total population consisted of new migrants - or total visible migration to the city might have commenced sometime in the first and second decades of the present century.

Table 1.02: Percentage composition of the Migrant Non-Migrant population according to Sex and Age in Kanpur (Pre-1940 and 1941-1955)

Migration/Non-Migration	Men	Women	Sub Total	Younger	Total	col.4 & 5
	(over 14 years)			Total ones below 14 yrs.	14 yrs.	
1.	2.	3.	4.	5.	6.	
I. Non-migrants	11.52	10.19	21.71	14.69	36.40	
II(a) Migrants pre 1940	11.12	9.14	20.26	12.00	32.26	
(b) " 1941-45	4.03	2.78	6.81	3.98	10.79	
(c) " 1946-50	4.53	2.91	7.44	4.31	11.75	
(d) " 1951-55	3.76	2.29	6.05	2.75	8.80	
Total	34.96	27.31	62.27	37.73	100.00	

Source: D.N. Mazumdar: Ibid Table-1, page 65.

Observation: It may be observed that the dependency ratio is 1:2, believing that women do not go to work as is obvious due to significant masculine population of Kanpur and also because the working population is only 33% of the total population in Kanpur.

1.21 Kanpur, at one time, was called the Manchester of India; no industrial population was stabilised in the city-and migration from rural areas fed the requirements of the man-power needed for the growing industries in Kanpur; non-doubt the crest of migration in Kanpur reached during Second World War. In Kanpur, according to Nichoff, the migration from rural areas was due to (i) economic plight (primarily caused by land inadequacy and less caste occupation), for 58.6 percent of migrants; (ii) dissolution of family, for 13.5 percent; (iii) trouble in or dissatisfaction with the village, for 11.5; and (iv) brought or attracted to the city by the relatives, for 16.3 percent. The comparatively high-ratio of masculine complexion of the industrial Kanpur - because the labour is from low caste and no inflow of tribal labour because tribal population in U.P. forms an insignificant proportion of the total population. Nichoff also noted that that pre-war migrants were unskilled/semi-skilled labourers - whereas post-war migrants were skilled and they came from middle-class. The post-war change in migration trend has resulted in loss of talents in the villages of India.

1.22 Kanpur - in contrast to Ahmedabad, Bombay, Calcutta - has not developed a fringe of urbanisation; Kanpur is serviced to and fro/by the/villages to Kanpur but also/from eastern districts of U.P. - and this aspect creates a constant flow, in and out, from the town to the village and vice-versa. In the process, the factories in Kanpur built only slums, and did not think of developing the settlements for the labour; consequently the industrial labour was drawn in the laps of private enterprise which developed the institution of 'ahatas' - which became a 'vested interest' - and produced a crew of small and big exploiting individuals/families to extort high rents alongwith ghastly(or no)service facilities to the tenants. Such conditions will perhaps continue to operate without

pricking the social conscience - and occasional bursts/of thinking population (or a Prime Minister) will not improve the lot of millions of slum-dwellers.

1.23 The level of living of the industrial labour (and for that matter the slum-dwellers) is regulated by the income earned by them; but alas, for casually employed it is difficult to figure out his regular income. The survey carried out by Mazumdar found that even in mid-1950's, there were variations in the income-levels of migrant and non-migrant labour: the migrant families had a higher proportion of low-income brackets (Rs.100 and below per month) than the non-migrants; the migrants of post-1940 had the low-income families proportion at 65.23 percent; pre-1940 migrants, 62.57 percent; and non-migrants, 57.04 percent. Again, those with an income of 'Rs.100 and over', the corresponding proportion of low-income brackets families for post-1940 migrant, pre-1940 migrant, and non-migrant were 31.47 percent, 32.08 percent, and 35.99 percent. However, in the income-bracket of Rs.201-400, the non-migrants constituted a lesser percentage than that of the migrants - and perhaps the latter were middle-class or officer migrants posted in Kanpur (See Table 1.03)

1.24 As regards, family size in relation to the income-levels and migrant or non-migrant status or the duration of life as a migrant, it is interesting to know of the results of the mid-1950's survey of the Kanpur city. The family average size turned out to be 4.36. But there was a direct relation between family-size and the income-levels; with the size in income-levels the family size increased; so also, with the longer stay in the city, the size of the family size increased. From the family size at '3.34' for the lowest family income of 'Rs.50 and below' per month, increased to 4.02, for income-bracket Rs.51-100; 5.476, for income-bracket Rs.101-200; and 6.28, for income-bracket Rs.201-400; 6.60, for income-bracket Rs.401-1000; and 6.80, for income bracket Rs.1001 and

over. Again, for the non-immigrant averages family size was 5.41; for pre-1940 migrant, 5.03; and for post-1940 migrant, 3.75 . With a little aberration for pre-1940 migrant in case of income-bracket of 'Rs.1001 and over'; the positive relation was observed of family size for different income-brackets of non-migrants, pre-1940 migrants and post-1940 migrants in the descending order according to the length of stay in Kanpur city. (For details Table 1.03). Further, the non-migrants had higher proportions of higher income brackets - but their per capita income turned out to be lower than that of the migrants; even the late migrants registered a higher average per capita income than the earlier migrants.

Table 1.03 Average Family sizes in relation to
(1) Income Brackets; and (2) Period spent
as migrants.

Migrants/Non-Migrants Income Brackets	Non- Migrants	Pre-1940 Migrants	Post-1940 Migrants	Family size Average of all the income brackets.
I. Rs.50 and below	3.90	3.55	2.81	3.04
II. Rs.51-100	4.72	4.26	3.33	4.02
III. Rs.101-200	6.46	6.34	4.61	5.76
IV. Rs.201-400	7.43	7.08	4.91	6.28
V. Rs.401-1000	6.66	6.51	6.60	6.60
VI. Rs.1001 and over	6.96	8.78	6.02	6.80
VII. Family size average of all the groups	<u>5.41</u>	<u>5.03</u>	<u>3.75</u>	<u>4.36</u>

1.25 The proportion of slum-population which was 20 percent (as stated in paras 1.10), climbed to about 24-25 percent in mid-1950's at the time of Mazumdar's Survey - which analysed that nearly 61 percent of the households (out of a sample of 4,914) lived in central area - with variegated environmental patterns and differing civic

amenities ; in slum areas; about 5 percent, in business area; 4.24 percent, in civil area - a posh area with all the urban facilities.

Nearly 18 percent of the households lived in own-houses; 2.5 percent of the households lived in employers houses free of rent; and the rest lived as tenants. Only 30 percent of the houses had 'pucca' roofs and walls and rest 70 percent had either walls and/or roofs made of 'kutcha' materials. Nearly two-thirds of the households did not have electricity light- and were dependent on oil lamps.

1.26 Nearly 62 percent households were living in one-room houses; 26 percent, in two-room houses; 6.5 percent, in three-room houses; 3 percent, in 4-room houses and rest of the 2.5 percent in 5-17 room houses. Approximately, 35 percent of the households in the city did not have water taps; whereas in some cases one tap was shared by 50 tenants.

1.27 The urgency for providing liveable dwellings for the labourers was being realised all-around; but construction of tenements was not possible near the work places since the neighbourhoods were occupied by the government officers and Europeans, in affluent bungalows who resented and resisted any attempt to bring labour in nearby areas. The authorities when deciphered some areas and the employers constructed some houses for the labour, the housing conditions were distressing; the majorities of houses were in narrow lanes-with difficult negotiability. Ventilation was bad, ground was damp, water was to be drawn from polluted wells, public latrines in-adequate, and the aggregate result was high infant mortality rate, healthy, high absences ratios of the workers, bad health, low income, high birth and death rates - in which migrant families were very vulnerable. The social infra-structure (schools, dispensaries, parks, transportation-links etc.).

In Kanpur, does not have correlation between locational pattern of the town.

1.28.3 For the first time, in relation to providing of housing to industrial workers (under Subsidised Industrial Housing Scheme, 1952) and cognate problems of slum dweller's housing in Kanpur city, 12 slum areas (situated in different sectors) were selected for acquisition of land and clearance of slums for which the most of the residents (over 70 percent) were psychologically prepared. For the latter purpose about Rs.2.90 million were estimated of which Rs.0.163 million were spent on land acquisition and the rest (about Rs.2.72 million) were left over for 11 slums. A survey was made in 1952-53 by Kanpur Development Board of the 11 areas - holding in all 1,712 families with a population of 6,524 (or an average of 3.8 persons per family); the workers numbered 1803: 863 industrial workers and 940 non-industrial workers, and it conveys that a family had, on an average, 1 worker and the working population formed only 28 percent of the slum population. The rent paid by the slum families (for mostly one-room-house) ranged between Rs.4/- p.m. as also less than Rs.4/- p.m. mostly divided half-and-half in these two categories.

1.29 Another survey in 1952 for 31 ahatas was undertaken by the Office of the Town and Village Planner to Uttar Pradesh Government by surveying 1,145 workers in these 'ahatas'. From this survey it also emerged that 87 percent of the workers expressed need for two-room accommodation and about 6 percent, 3-room accommodation - though nearly 70 percent of the workers were actually living in one room with density per room of 5 persons per room. However, since the survey revealed that 31 percent of the workers were unmarried (who might only need accommodation of dormitory type - as assessed by the Office of Town and Village Planner.

9) The eleven areas/ahatas were: Ram Swarup Ka Ahata; Burma Din Ka Ahata; Manna Mukta Ka Ahata-1; Manna Mukta Ka Ahata-2; Bipat Khatik Ka Ahata; Chuna Bhatia Ka Ahata; Fakharu-Uddin Ka Ahata; Dorilal Ka Ahata; Ghusruman; Gutaiya Kalan; and Gutaiye Khurd (Refer to letter from Administrator, Kanpur Development Board to the Secretary Labour Department Uttar Pradesh of September, 1952).

10) Refer to letter No. 295-Tp/1951 of June 1952 from Town and Village Planner to Secretary, Industries Department, U.P. on "Housing for Industrial Workers at Kanpur". (Also see Annex 1.01-1.04)

Spatial accommodation area, in the housing units, by 42.5 percent was less than 75 sq.ft.; 53 percent, between 75-200 sq.ft.-thus, 95 percent of the housing units had less than 200 sq.ft. area to live in. Again, 8.6 percent of the workers paid less than Rs.2/- p.m. as rent; 52 percent were paying between Rs.2-4 p.m.; 12 percent, more than Rs.4/- p.m. In all, the rent paying capacity of 53.6 percent of workers was less than Rs.5/- pm. for a better house and 29 percent, could pay from Rs.5-10 p.m. Monthly income for 61 percent of the workers was between Rs.50-100 p.m. and those earning less than Rs.50 p.m. were 18.6 percent. 36 percent workers lived within a distance of three-fourth of a mile and only about 1 percent one-and-a-half mile; and three-fourths negotiated to work place on foot; and only 1.6 percent could go on cycle. From these data, the Town and Village Planning Office reached some conclusions about the design of the houses for the cheta dwellers/ industrial workers: (a) Distance for work place/factory should be less than one mile (b) A family should have two-room house; (c) nearly one-third of the houses should be planned for single persons; (d) Rent should not go beyond Rs.5/- p.m.; (e) privacy in house design; (f) shopping area for daily needs; (g) one ^{elementary} school for an one area of 700 workers; (h) enough playing area for children; (i) amenities of life - that is, essential and community facilities on a community basis.

S U M M A R Y

Around the First World War, descent of the processes of industrialisation, urbanisation and technological modernisation in Kanpur injected situations of wide disparity in levels of livings, income and savings, development of human faculties, much more so amongst the rural migrants in Kanpur who lived in degraded environment - forming slum and squatter colonies without social, essential and community sevices.

The density of population which was 178 per sq.mile in 1911, had increased to 219, in 1921, further raised the burden of density during Second World War, and thereafter due to influx of refugee population following Partition - when in spite of 1919 - Improvement Act no perceptible change had occurred in civil amenities; situation had immensely deteriorated - since 1945 - Kanpur Development Act also largely proved infructuous.

Kanpur developed 'overcrowding' (along with much more congestion in slum colonies) and masculine character of the Kanpur population climbed few steps upwards. The household size ^{increased} to 4.5 persons in 1961 from 3.9 persons, in 1951, as a result of low supply rate of 1.2 houses per annum per 1000 people during three decades(1920-50). Slum population of 1,23,775 persons, in 1948, was living in 'Ahatas' having only 33,385 rooms (with room density of 2.8 persons). Basically, in 1951, the Kanpur Development Board had estimated a dwellings shortage of 92,000 two-roomed dwelling units; 80 percent of dwellings did not have dry latrines; and for 200,000 people sewerage-system was non-existent.

Land use situation is such that out of 57,000 acres of land (in municipal corporation, railway colony,

Armapur Estate, and Chakeri Aerodrome) only 16,000 areas was for urban use, in 1960 and two-thirds under agriculture and literary proportion was 31.5 percent in Kanpur; two-thirds of the Kanpur population was born in Kanpur district and one-third was made by migrants.

Annex 1.01: Lay-out of Land use and Design of housing for Slum Dwellers and Industrial Workers in Kanpur

(Prepared by Town and Village Planner in 1952) for 31 Ahatas Redevelopment/ Clearance Scheme.

A. Housing

I. Two-room houses (for 65% of total workers family)

1. Total area of land = 1,893 sq-ft. or 210 sq.yds.
2. Area of the houses = 1,183 sq.ft. (or about 1200 sq.ft.)
21.5ft.x 55ft.
3. Area of two rooms = 247.25 sq.ft. (including walls)
10'x12' + 10'x8'
- 3a. Veranda's Area 172 sq.ft.
Total 462 sq.ft.

3b. Veranda to sleep during nine months or in courtyard.
(veranda is provided at the back facing back yard)

4. Row housing of 10 units each keeping side walls common in a block (effeeting sizeable economy in wall construction)

II. Dormitorics to house single workers (35%)
in a block of 6 rooms each and each room housing four workers.

1. Room size (including walls)	18'x10'	180 sq.ft.
veranda of 8 ft.		224 sq.ft.
		<u>156</u> sq.ft.
		<u>380</u> sq.ft.

(or 95' for each worker)

B. Infra-Structure

III(a) Economy in land

Since the land is very costly in Kanpur, economy in land-use without causing inconvenience is called for.

(b) Total lengths of streets comes to 15,000 ft (or 14 ft of street length per workers for a total of 1,088 workers; the main road 20' wide and cross streets 12' pavements only).

(c) Length of public utility will be 4,000 ft. or 3'9" per worker housed); the strategy is to have bath rooms and latrines on a communal basis.

- (D) Shopping centres - to be located centrally with 16 shops (which can be owned and operated by workers on a cooperative basis).
- (E) Schools (Elementary) with a site of 215ft x268ft - and it has to be easily accessible for all children of 1,088 workers.

C. Financial Cost

- (1) Rs.5.25 per sq.ft. for rooms; and
- (2) Rs.4.00 per sq.ft. for veranda.
The cost of the two-rooms tenement will be Rs.2000/-
(per person in the family on an average Rs.500/-
(per worker Rs.450) unit and of veranda plus
single room.

Annex 1.02 Slum Clearance-cum-Redevelopment Scheme for
Gwaltoli in Kanpur

The area of Gwaltoli in Kanpur, has been in existence for years as very insanitary and congested (not accessible to vehicular traffic) and has been recognised as a great slum. Kanpur Improvement Trust had notified in 1942, this area as a slum. To remedy the eyesores, the scheme was prepared to improve the area partly by acquiring a few houses and to provide roads, sewers, watermains etc. taking care that only a minimum demolition of buildings will be affected.

The Gwaltoli scheme (in Chak No.12) deal with an area of 72.72 acres in and around Gwaltoli: (1) 37.88 acres is the actual land to form the core of the schemes; (2) 27.42 acres remaining area consisting partly of bungalows land and partly Abadi land; (3) 7.42 acres of area of surrounding roads. Excluding the area of the surrounding roads, the land with the scheme's boundary comes down to 65.3 acres, and excluding 27.42 of land needed bungalows and Abadi comes down to 37.88 acres for main development.

There were 1,550 families living in 211 houses in 1952 in Gwaltoli, having a total annual income of Rs. 132,064 (average per capita family per annum income being Rs.852 or per capita income of about Rs.213 per annum) - out of which yearly house tax paid amounted to Rs.9,821 (or 6.6 percent of the total income) and Rs.7,939.5 (or 6 percent of the total income). Thus the local tax itself formed 12.6% or more than one-eighth of the income - which in any case regressive. The clearance scheme was going to touch 507 houses of which 211 houses (or 40 percent) were proposed to be acquired under the scheme; and all the acquired houses were to be demolished. However, only 618 families out of 1550 families were to be accommodated or rehoused on the slum sites --and the rest of the 932 families were to be dehoused-to be ultimately rehoused elsewhere in new industrial labour quarters which were constructed at old Kanpur and Harihar Nath Shastri Nagar -

raising new problems of rehousing the dehoused families.

The physical planning proposal for re-planning the area provided for a 60' major road, several 40' roads and also 30' and 20' roads. The main element of the proposal offered two sites of about 3.6 acres - one for rehousing slum-dwellers and the other for 'gwalas'. Only those bungalows were acquired which were required for adjustment of saleable plot boundary and for construction of new road(s) - and Abadi houses (which were pucca on the whole) were left out of acquisition-but could be asked to re-build later-by improving necessary conditions.

Besides roads-referred to in the above paragraph the development of underground sewers, storm water drains, street lighting on every pole, parks, with boundary walls, schools, shopping sites, water mains to service the entire area. However the lay-out and sub-division plan did not show the division of plots except the depts. to which plots will be available for sale along the newly constructed roads.

land, roads,

The cost estimates of/sewers, s.w. drain, water mains, etc. are given in Statement 1.A. The income for sale of commercial plots for school sites, church and sites on west Ahata and along Nala, Gwala plots, Residential plots, sale of Malba, betterment tax, or reconveyance of bungalow portions and church compound are given in Statement 1.B.

**Annex 1. 03 Cost Estimate of the Gwaltoli Area
Slum Clearance and Redevelopment
Scheme in Kanpur City (1957)**

Sl.No.	Items of Cost	Sub-costs (Rs.)	Total costs (Rs.)
(1)	(2)	(3)	(4)
1. Cost of Land Acquisition			
	(a) annual assessment less house Tax, Water Tax and repairs, etc.	1,32,064 (-)	30,765 101,099
	(b) 10 times multiple of (a) as purchase cost. plus 2.5 percent over- head charges		1,010,990 252,500
	Total		1,26,3490
			(including cost of houses previously acquired by the Kanpur Development Board)
2. Cost of Engineering and Development work			
	(a) Roads		
	i) 60' road of 620' @ Rs.40 per ft.	66,800	
	ii) 40' road of 3750' @ Rs.24 per ft.	90,000	
	iii) 30' road of 2260' @ Rs.20 per ft.	45,200	
	iv) 20' road of 2,960' Rs.15 per ft.	44,400	
	Total		2,46,400
	(b) Sewers on all road @ Rs.10 per ft.		1,06,000
	(c) S.W. Drain for 60' & 40' roads @ Rs.20 per ft.		55,200
	(d) Laying Water mains on all the four types of roads as in (a) @ Rs.5/-per ft.		53,000
	(e) Street-lighting		10,000
	(f) Construction of parks and well		5,000
	(g) Proportionate cost of external development		20,000
	(h) Cost of improving Abadi		10,000
	Add 15% overhead charges		5,05,600
			75,000
			5,80,600

: 29 :

(1) (2) (3) (4)

3. Grand Total cost of (1)*(2) 18,44,090

Source: Letter No. 2711/Adm. of September 21, 1957 from The Administrator, Kanpur Municipal and Development Board Kanpur to (i) Commissioner, Allahabad Division; (2) Chief Engineer Local Self Government Engineering Department, etc.

Notes: (i) There is some oversight mistake in regard to cost of acquisition - it should be Rs.1,26,3490 and not Rs.11,38,727 - and therefore grand total of the cost would be Rs.18,44,090 in place of Rs.17,19,327.

(2) Cost price in 1977 will easily be about four times of what was in 1957.

**Annex 1.04 : Estimated Sources of Income Accruals for
Gwaltoli Area Slum Clearance and
Redevelopment in Kanpur City.**

Sl.No.	Items of income	Sub-costs (Rs.)	Total costs (Rs.)
(1)	(2)	(3)	(4)
Commercial Plots			
(a)	along Nala 27,511 sq.yd at Rs.30 per yd.	8,25,330	
(b)	Gwala plots 3200 sq.yds. at Rs.15 per yd.	48,000	
	(i) 43,400 sq.ft. at Rs.5 sq.yd	18,500	
	(ii) 17,700 sq.yd = 3.6 acres @ Rs.20,000/- per acre	72,000	
(c)	Residential 18 plots of different sizes total=42,833 sq.yds. @ Rs.15 sq.yd	6,42,495	
(+)	Miscellaneous (i) Sale of Malba (ii) Betterment tax (iii) Reconveyance of Bungalow portions and compound	50,000 5,000 40,000	17,01,325

Source:- As in Annex 1.03.

Note:- Sale price will easily be about four times of
1957, for the same items, in 1977.

II. Retarded Housing Supply and Acceleration
in the Growth of Slum and Squatter
Settlements (during Mid-1950's to Mid-1970's)

2.01 The mid-1950's mark a watershed, in Kanpur city, in regard to the more consciousness and knowledge about slums and squatter settlements, because it was around this time that (1) a proper scientific survey about the social contours of the city was undertaken by Prof. D.N.Majumdar; (2) Slum Clearance and Sweepers' Housing Scheme was included, for the first time, in the plan strategy as this subsidised social housing scheme was incorporated in the Second Five-Year Plan (1956/57-1960-61) with a plan provision of Rs.200 million for the plan period; and (3) the urgency that developed in the post Second World War and post-Independence era, so far as it relates to Kanpur city-giving opportunity to use 'Ahata' Bye-Laws instituted in Kanpur - under Section 15(2) of the Kanpur Urban Area Development of 1945 - as sanctioned by U.P. Government - G.O No.6957/XI-6-D B-45 of November 21, 1946 and as amended vide G.O No.417A-KH-80-PB/58 of April 8, 1959.

2.02 It is important, however, to state about the urban growth in India. Urban population, in India, has more than quadrupled in seventy years - from 25.85 millions in 1901 to 108.79 millions in 1971 (see during the first 70 years of the present century). The decennial growth rate of urban population, however, accelerated after 1921 and developed momentum during the next four decades - being highest during the decennium 1940-51, at 41.3 per cent; and second next in 1961-71, at 37.83 per cent. During the same period (1921-71) number of urban areas increased from 1,917 to 2,921, registering their increase of little over 50 per cent. The rate of growth in a number of some towns was less than 1/8th of the rate/country's population during the period 1970-71. Consequently, the density of population in the large urban areas increased and more so that in larger cities with population '1,00,000 and more'; thus

Table-2.01: Rural, Urban and Total Population of India (1901-1971)

Year	Population			Indices of Growth in Population		
	Rural	Urban	Total	Rural	Urban	Total
1.	2.	3.	4.	5.	6.	7.
1901	212.55	25.85	238.40	100	100	100
1911	226.15 (6.40)	25.94 (0.35)	252.09 (5.95)	106	100	106
1920	223.23 (1.29)	28.09 (8.27)	251.32 (0.31)	105	109	105
1931	245.52 (9.98)	33.46 (19.12)	278.98 (11.0)	116	129	117
1941	274.51 (11.80)	44.15 (31.97)	318.66 (14.2)	129	171	134
1951	298.65 (8.79)	62.44 (41.93)	361.09 (13.31)	141	242	151
1961	360.30 (20.64)	78.94 (26.41)	439.24 (21.51)	170	305	184
1971	438.58 (21.78)	108.79 (37.83)	547.37 (24.66)	206	421	230

Note: Figures within brackets indicate decennial rate of growth from the year of previous census.

besides the increases, the proportions of the urban population in the few larger cities was as well higher. For example, in 1951, there were 76 larger cities with a total population of 23.7 millions which formed a proportion of 41.8 per cent of the total urban population; in 1960-61, the number of larger cities increased to 115 with a population of 38.2 millions forming 48.2 per cent of the total urban population; and in 1970-71, with 142 larger towns the population of the larger cities increased to 57 millions, representing 52.4 per cent of the total urban population. This naturally escalated further the density of population in the larger cities. Urban conditions of living, due to foregoing dynamics, seriously deteriorated from year to year, resulting in tremendous gap in urban infra-structure needed for a reasonable level of productive income and community facilities - including housing and its related essential services and social infra-structure.

2.03 The income levels, however, of most of the urban population households are low - as much as that it is not possible ^{for} a majority of them to finance the capital cost of housing - leave aside their contribution to finance (current charges) a satisfactory level of civic facilities, services and amenities. This naturally led to housing shortages in urban areas which increased from 2.8 million units, in 1951, to 3.6 millions, in 1961, and could at a still higher point, in 1971.

2.04 During the first three Five-Year Plans, the total housing - produced by Government, semi-governments and private sector - was barely ^{per annum} 3.5 units per thousand persons as against the requirement of 10 units per thousand people. So also the water supply, sewerage services created in the urban areas fell short and a Committee on National Water Supply and Sanitation (1960-61) had indicated that only 700 towns and cities, holding more than 60 per cent of the urban population, had water supply - while about half of these towns and cities were inadequately served only 30 per cent

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of the urban population was served by sewerage wholly or partially. Most city systems had a very large percent of houses without sewerage connections. The Table below portrays the deficiencies in housing as regards amenities in 5 cities, i.e. Bombay, Hyderabad and three cities of United Provinces, namely, Gorakhpur, Kanpur and Lucknow.

Table 2.02: Percentage of immigrant families without adequate facilities in six cities - one each in Maharashtra, Andhra Pradesh, Bihar and three in U.P.

Cities	Without independent water supply	With independent latrine	With independent kitchen	Without bathing facilities	Without electricity city
1. Bombay	72.0	12.7	71.4	76.0	41.2
2. Gorakhpur	66.5	40.7	54.6	81.7	91.8
3. Hyderabad	N.A.	N.A.	43.4	55.6	68.3
4. Kanpur	87.2	N.A.	N.A.	N.A.	62.0
5. Lucknow	64.6	51.2	63.1	86.4	81.7

Source: J.F. Bulsara "Problems of Rapid Urbanisation in India."

2.05 Aresult of increasing urban population was associated with almost negligible rate of supplies of various services. Residential areas got crowded -developing unhealthy surroundings. Indigent, unemployed and new rural migrants found such areas as , available for the initial urban living; they could squat on-public or private land and/or construct unauthorised ram-shackles so that they could eke out meagre income - often below susistence level of living. Thus slums were continuously created and both their stock as well as overcrowding and unhygienic conditions increased unabated in urban settlements.

2.06 It will not be wrong to say that under certain situations the slums had beneficial effects; as also the migrants who had no place to live, slums performed a function as a training ground to the new-comers for city living and

to provide a first urban job - though at very low wages. In developing countries where the gap between the village and urban life is wide this aspect is valuable and important. It is equally true that the slums have become a concurrent part of urban life - both in developed and developing countries. The percentage of new construction of slums and squatters and settlements is sizeable. Uncontrolled growth of new industries induces further haphazard growth of unauthorised squatter settlements devoid of welfare agencies to inject civic and social consciousness.

2.07 Slums generate their progeny quite fast. Squatting also gathers sizeable support, and the complementary growth thrives with continuous defiance of authority. A paper discussed at the Seminar on Problems of Unauthorised Construction, organised by the Delhi Municipal Corporation, in November 1967, can appropriately be quoted regarding development of unauthorised settlements:

"this is an industry which knows no strikes or lock-outs; shortage of raw materials does not turn in bearish course. Like Tennyson's brook, it goes on for ever. Its spoils are shared by land pirates, while its price is paid by the town in terms of beauty and cleanliness. Where we dreamt that there should be a park, a festering slum is born; the plan of a school yields place to a heap of rubbish; and where our children were to swing or play ball, pigs and dogs and ghoulish creatures may abound. The selfish and unscrupulous share the spoils on a large-scale loot while the poor suffer and shrivel up in hovels that stink."

2.08 Slum areas, in the housing programmes, received a lower priority in India and it remains a neglected sector in the process of social and economic development planning. "Slum Clearance and "Sweepers" Housing" was initiated only with the Second Plan. A sizeable stock of the slums requires immediate demolitions and demands urgent action for improving slum conditions.)

2.09 Slum Improvement and Clearance Act, 1956, defined Slum Area as that which is unfit for human habitation or is by

1) See Annex-2.01

2) See Annex-2.01 relating to the provisions of Slum Improvement and Clearance Act, 1956.

reason of delapidation, overcrowding, faulty arrangements and design of such buildings, narrowness or faulty arrangements of streets, lack of ventilation, light or sanitation facilities or any combination of these factors becomes detrimental to safety, health or morals; and allows the Government by a notification in the Gazette to declare such areas to be slum areas. On the lines of the above Central Act, States adopted Slum Acts, with some modifications. For example, Tamil Nadu added further that "any area which is or may be/source of danger to the health, safety or convenience of the public of that area or its neighbourhood by reasons of that area being insanitary, squalid, overcrowded or otherwise" may be declared as slum area.³⁾ The West Bengal Slum Improvement and Clearance Act, while following the features of a slum as laid down in the Central Act, further added that "If the State Government is satisfied that the conditions of the land, huts or other structures in any other area is such where the continuance of such conditions would be injurious to public health, or safety or to the health, hygiene or morals of the inhabitants, it may be declared as slum area."

2.10 The slum areas can be classified as follows - roughly based on relative intensity of slum conditions:-

- (1) Squatters' settlements such as Jhuggis and Jhonpris in Delhi, Cheries in Madras, Zopad in Bombay, which have been erected in unauthorised fashion, usually on land belonging to the Government or local authorities;
- (2) Squatters' settlements which are inspired by some people who see the sizeable stretch of public or municipal land and organise an unauthorised construction by prospective hut dwellers;
- (3) Squatters' settlements, with a slight variation of category, where the hut(s) is erected by one person and is sublet to another person;

³⁾ Tamil Nadu and Maharashtra perhaps are the only States where independent slum development board(s) have been constituted with some meaningful results.

- (4) Settlement on land where title to the land and structure is valid, but structure is divided by the owner and is sublet to a very large number of people, causing over-crowding and insanitation; the chawls in Bombay, Ahmedabad and other industrial towns fall in this category; and
- (5) Tenancy settlements such as Bastees in Calcutta, and Ahatas in Kanpur where the title to the land is held by one person and structure belongs to second one and the third person is the dweller who is the tenant or the hut-owner.

2.11 Locations of slums are generally found on the outskirts of the cities as ribbon developments on the sites, adjacent to high-ways and main roads and in the neighbourhood of industries and around other significant economic activities. For example, in Bombay, slums are not in southern area, but are mostly located in northern part of the city as a continuous chain. In case of industrial and commercial cities like Calcutta and Kanpur having sizeable hinter lands, slums occupy a large and continuous area of the city. In Calcutta, size of the slums range between 8,000 - 10,000 people and they are in the neighbourhoods of Howrah and Baliganj; the individual Bastees, have population of 25,000 to 30,000; and in Kanpur also some of the slums almost encircle the industrial establishments and their sizes equal to sizes of slums in Calcutta.

2.12 The Slum Clearance and Sweepers' Housing Scheme was planned to be launched in all the large towns, in the country as the growth of slums was causing a growing concern and also because very little was done during the first plan to improve the condition of slum dwellers housing through the Subsidised Industrial Housing

Central Government Ministries, State Departments, local authorities and those pertaining to coal and Mica Mines.⁵⁾ However, the Second Plan Report firstly, felt that the problem of slums will remain, unless steps are taken (a) to prevent formation of new slums, (b) to enforce municipal Bye-laws with strictness with the support of the enlightened citizenry, (c) to prepare master plans for large towns with the help of requisite powers to execute zoning schemes, control of land use and check ribbon developments. Secondly, the Plan emphasized that it is also essential to tackle the problems of existing slums by eschewing demolition as far as feasible and by employing measures for improvement where local situations permit. Three difficulties were also noted in the Second Plan which come in the way of implementing slum clearance and improvement programmes, namely, (i) high cost-of acquisition of slums, (ii) unwillingness of the slum-dwellers to shift to distant places to avoid disruption in their social and economic fabric, and (iii) to devise methods to produce suitable slum tenements within certain construction costs --which could be within the paying capacity of the slum-dwellers. Keeping the foregoing aspects in view a provision of Rs.200 millions was provided for 'slum clearance and sweepers' housing' - as stated in paragraph 2.13. To facilitate slum land acquisition, in the Second Plan Report suggestions were (i) to take advantage of the provisions of Article 31 of the Constitution, (2) to create proper climate for slum dwellers, by conducting socio-economic surveys of the worst slum areas in the larger towns and draw phased programmes for slum clearance; and (3) to emphasize on the providing of minimum standards of environmental hygiene and essential services - rather than construction of elaborate structures. The scheme for financing provided for 25 percent central capital subsidy, 50 percent central loan finance-repayable over 30 years, and 25 percent capital subsidy by the State governments from their own resources. Eligibility was limited to slum

⁵⁾ Refer to Second Five Year Plan, pages 555-556 (1956)

Scheme⁺) and the slum problem not only remained as it was but grew in proportion - and more slums were coming into the large towns - and more so in large industrial towns. Though it is true that during the First Plan various schemes created a sizeable housing stock, namely, (a) housing for the workers in the coal industry -financed from the Coal Mines Labour Welfare Fund; (b) substantial housing programmes undertaken by the Ministries of Rehabilitation, Defence, Railways, Iron and Steel, Production, Communication, Works & Housing, State Governments - numbering 523,000 units houses or tenements in urban areas by the Ministry of Rehabilitation, 300,000 by other Ministries (other than Works & Housing).

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2.13 For the first time in the Second Plan (1955-56 - 1960-61), prepared programmes for 128,000 tenements under SIHS, 110,000 for 'Re-housing of slum dwellers-including sweepers', and 11,000 for plantation labour housing - in addition to the programmes undertaken for 753,000 units by other

4) Two industrial housing schemes were tried out before the introduction of SIHS under the First Plan; one scheme was formulated in 1949 under which Centre agreed to grant interest-free loans to State governments/private employers sponsored by the State Govts., to the extent of 66.6% of the cost of housing schemes on the condition that the rent charged did not exceed $\frac{1}{2}$ per cent of the capital cost subject to a maximum of 10 per cent of workers' wages. In 1952, subsidy upto 20 percent of the cost of construction and land, and the balance of the cost was to be met by the employers - to whom the houses were to belong - and the houses were to be leased to genuine workers on the same terms as in the 1949 scheme. None of these schemes received substantial results. Accordingly, SIHS was inaugurated in 1954 in which 50 percent of the cost was given as capital subsidy and another 50 percent as loan at $4\frac{1}{2}$ percent for which Centre offered the funds to the States; however, for the employers' houses the capital subsidy was 25% and loan 37.5%. Out of 68,200 SIHS houses to be built -only 43,834 were built in the country: 37,217 by State Govts., 6079 by employers and 538 by cooperatives. In U.P. the number completed was 13,763: 13426 by the State Govt. 314 by employees and 23 by cooperatives. The results as observed by the Review of the First Plan were not encouraging and careful re-examination of urban housing problem was necessary. However, by August 1974, in U.P. the SIHS tenements constructed were 28,919 of which 18,015 were in Kanpur. In addition, employers, upto August, 1974 - built 7,066 SIHS tenements-of which approximately 4,500 could be in Kanpur (U.P. Government Administration Report 1974-75) pgc, 155.

families having income under Rs.250 p.m. in Bombay and Calcutta and under Rs.175 p.m. in other towns; and the other slum families earning more than Rs.250 p.m. were to look to low-income housing scheme or other schemes -for which the assistance for getting land may be set aside by the State Governments. Modus operandi for implementing the programmes it was suggested that State Governments and local governments should provide slum dwellers developed and demarcated plots of land of 1000-1200 sq.ft. as also certain limited quantity of building materials-leaving to the slum-dwellers to build, as far as possible, on the principle of 'self-help' and 'mutual self-help'. It was also hoped that as a large proportion of slum-dwellers are sweepers, they will be able to shift to new dwellings from the present habitations.

2.14 The Third Plan Report (1960-61 - 1965-66) noted that during the Second Plan out of a provision of Rs.200 millions only Rs.99 millions were spent but provided for more funds amounting to Rs.286 millions for the Third Plan on "Slum-Clearance, -Slum Improvement and Construction of Night Shelters" - in addition to an allocation of Rs.298 millions for Subsidised Industrial Housing Scheme(as compared to Rs.242 millions spent in Second Plan), Rs.352 millions for 'low-income housing' (as compared to Rs.378 millions in the Second Plan), Rs.54 millions for 'town planning and preparation of master plans(as compared to 11 million in the Second Plan Rs.123 millions for urban development schemes. The physical targets fixed for the Third Plan under Slum Clearance, SIHS, IIG and Coal and Mica workers in terms of houses/tenements to be raised were 100,000 , 73,000 and 75,000 and 60,000 respectively. In the Third Plan, a scheme supplementing Slum Clearance Scheme was also started; it was that of 'providing of skeletal housing' and 'open developed plots '⁶ with separate washing platform and latrine for each family - however, leaving it to be slum-dwellers to build

6) The scheme, perhaps in some way, is a precursor of the 'Site and Service Scheme launched by the World Bank, in a number of developing countries (including India) during early 1970's (For World Bank's 'Site and Services' Scheme see Annex-2.02)

huts/houses of a prescribed pattern themselves on 'self-help' basis in accordance with the technical directives of the State Government. Further, some of the States (namely, Mysore, Madras, Madhya Pradesh, Assam, Punjab, West Bengal and Delhi) enacted legislation during the Second Plan period for speedier acquisition of slum areas and scaling down of the rate of compensation. Slum Clearance Scheme was reviewed by two Committees: (1) Advisory Committee on Slum Clearance; and (2) Study Team set up by the Committee on Plan Projects. The Committees noted that while long-term plans are necessary, it was more essential to think of short-term plans to relieve acute distress in the slums about environmental hygiene and essential services - and recommended for taking immediate measures to provide sanitary latrines, proper drainage, uncontaminated water, good approach roads, paved streets and proper lighting - and this led to nomenclature the scheme as Slum Clearance and Slum Improvement Scheme. Larger resources were also provided for dealing with slum problems in six major cities - namely, Calcutta, Bombay, Madras, Delhi, Kanpur and Ahmedabad. In these cities, total subsidy levels were raised from 50% capital subsidy to 62.5% and the share of the Central Government was raised from 25% to 37.5%. It was also suggested to State Governments to arrange surveys of slum areas - classifying them into two categories - one, which may have to be cleared and the other which can be made habitable by improving environmental conditions. To implement the programme more successfully, it was suggested in the **Third Plan Report** to enlist the cooperation of voluntary Organisations and social workers.

2.15 Another variant of 'slum-clearance and improvement scheme' is Jhuggi and Jhonparies scheme confined to Delhi. Expenditure under this scheme is the responsibility directly of the Central Government. The scheme is for the eradication of unauthorised constructions (prior to July 1960) as well as for halting the growth of slums. The unauthorised

7) An eminent authority on Human Settlements Dr. Constantinos Doxiadis, in relation to Slums in Khartoum (Sudan) recommended when police came to tear them down that they not only not destroy them, but certain municipal services be provided to the inhabitants of the slums-to serve as a tremendous teaching machine through with individuals and families move.

occupants of urban land are classified under this scheme into three tracks:

- (i) all employees of the government and local bodies, in the first instance should live at camping sites till their ultimate movement to accommodations in the "general pool"
- (ii) providing of camping plots of 25 sq.m. only to migrant labour; and
- (iii) providing of 25 sq.m. developed plots to eligible squatters from the earlier plot size of 80 sq.yds- recognising the situations of land scarcity and the involvement of sizeable expenditure.

2.16 In the Fourth Plan - 1966/67 to 1970/71 (which had a plan holiday for some period), a provision of Rs.600 millions was made for 'slum-clearance and slum-improvement scheme' - besides Rs.450 millions for 'SIHS', and Rs.300 millions for 'low-income housing'. The scope of the 'slum clearance and slum-improvement' scheme was enlarged to take up schemes of 'urban renewal' as well. It was also noted that the slum clearance in central areas could prove all the potentiality of self-financing basis in case sufficient areas are provided in the re-development design for commercial and other remunerative uses - and in this regard using of the provisions of Central Slum Clearance Act by including them in the State legislation - so that the necessary authority and powers are devolved to the local authorities to undertake redevelopment and protect the rights of tenants in the redeveloped premises.

2.17 According to 1971 Census, 10.4 per cent of houses of Kanpur urban agglomeration had grass, leaves, reeds or bamboos, mud, unburnt bricks and wood as the predominant material of wall; and about 30% houses had roofs made of grass, leaves, reeds, wood, mud, unburnt bricks or bamboo and tiles, slates and shingle; it meant that 30% of houses in the urban agglomeration were kutcha houses. Overcrowding in dwellings and rooms was very high since 86 percent of the households lived in not more than two rooms; 62.4 per cent lived in one-room; while 23.6 per cent in two rooms.

Kanpur Development Board's housing programme fell short of relieving the congestion. Moreover, the tenements occupied by industrial workers were worse and could be labelled as not fit for human habitation in many areas. The total number of subsidized industrial housing tenements constructed were 18,015 while the actual allotment to industrial workers being 16,204+ and ineligibles were living in about 2,000 units. The scheme of decentralisation of wholesale, and retail markets which usually draw the people to the central area of city has only been partially successful. Absence of dispersed warehouses has however, added to the problem of congestion.

2.18 Insanitation of Kanpur is a continuous phenomenon as before. Even . newly developed areas do not have flush latrines and sweepers empty the night soil from dry latrines into open drains. On the whole it is estimated that 80 percent of houses in the city have dry latrines. The number of public latrines is hopelessly inadequate in the ahatas; resultantly, most of the people go to open space for easing themselves. The sewerage system meant for serving one-quarter (of the city population) is horribly over-strained.

2.19 The sprawling city has practically no quick transport. Only on certain roads buses are periodically seen and cycle rickshaw is the only dependable conveyance which nonetheless adds to congestion of the city streets. Cycle rickshaws plied by new migrants and job-seekers at competitive rates take away the traffic, particularly when the buses cannot ply on many of the narrow thoroughfares. Lack of wide roads with modern alignment has prevented to serve the needs of the city. Absence of parking space for incoming and outgoing vehicles, long closures at railway crossings, meagre provision of foot-paths - all combine to delay the traffic. Unauthorised occupation of roadside space by squatters and refugees further accentuates the existing problems.

2.20 The Draft Fifth Plan (1974-1979), incorporated the slum-improvement scheme under the Minimum-Needs Programme, and provided plan allocation of Rs.946.3 - Rs.1055 millions as compared to a mere expenditure of Rs.69.1 millions in the Fourth Plan period. The emphasis was laid on clearing out environment of slums by giving the minimum conditions for 'health' to various sections of urban population. The scheme provides for financial assistance to the States for expansion of water supply, sewerage, paving of streets, and the provision of community latrines etc. in slum areas - which are not likely to be cleared in the next ten years but are otherwise amenable to improvements. The scheme was extended to 11 cities with a population of 8 lakhs and more (which included Kanpur also); later 9 more cities were added to the list. In addition, for the Rural Development Projects' a provision of Rs.710.8 millions was made and an 'extra financial assistance for metropolitan development and projects of national importance' of Rs.2,500 millions has been allocated.

2.21 In the Final Fifth Plan, for the new schemes for the millions development of metropolitan towns, the provision of Rs.2,500 ~~has been~~ millions reduced to Rs.2300/- ^{millions} but for Calcutta and 'Delhi Capital Region plan', the provision have been separately provided of Rs.1756.5 million and Rs.200 millions respectively. Actually investment in housing declined from one/^{plan to the other 8)}

2.22 Now, it is important and purposive to enlighten on the Ahata Bye-Laws, about which reference has already been made in paragraph -2.01. It will help, later on, in examining the observing of the provisions of the Bye -Laws or ^{they} infringing them, over time so far ^{they} relate to the slum-settlements developed within the bounds of the 'Ahatas'.

definition of an Ahata 2.23 A definitional account is first given of some of the basic terms used under the Bye-laws, in what follows.

"An Ahata is a group of tenements 'not being less than 9 in number', and each of the tenement has 'two or less than two rooms - which are intended for human habitation. Again, the tenement is defined as a house

8) See Annex-2.04

or building or portion thereof which is let out for residence to four or more families-living independently and cooking independently of each other and having a common right in the halls, stair-cases, yard or cellar (a 'tenement', thus, almost comes to the definition of a "dwelling" in the census operations.) Servants quarter attached to a bungalow, if occupied by the servants of the occupier of a bungalow, is however, not to be taken either as an 'ahata' or a 'tenement' (clause).

Registration of ahatas or tenements

2.24 After the coming into force of the Ahata Bye-Laws - every owner of an ahata or tenement - whether old or new - was/is required to file an application, for the registration of his name in a Register maintained by the Medical Officer of Health (of Municipal Corporation), within a month of the occupation of ahata or tenement. Such application is required to contain (a) name and address of the agent ; (b) name and address of the owner; (c) address of the ahata or tenement - accompanied by the detailed plan of the buildings - marked separately for every tenant, so occupying the tenement. However, the liability of the owner rests in regard to the names of the Head of the family occupying the respective tenement - along with the number of persons classified as 'adults' and children under the age of 10 years; however, after this he is not liable to inform regarding subsequent increase or decrease in the number of inmates in the household. However, the communication about the change in the name and address of the agent and also change in the family/household to the Medical Officer of Health is obligatory within 15 days (clauses 2, 3, 4 and 5).

(a) Sanitation & Hygiene

Duties of the Owner of Ahatas or tenements

2.25 The owner or agent of the ahata/tenement is required to employ sufficient number of sweepers and bhassis (to the satisfaction of the Medical Officer(Health)) - so that all the common passages, court yards, latrines, drains are properly cleaned every morning and evening, and also all refuse and filth gets removed daily to the municipal dustbins provided in the locality. In case of non-compliance by the

owner or agent, under Sect. 271 of U.P. Provinces Municipalities Act - 1916, the Medical Officer of Health has the powers to employ conservancy staff at the expense of the owner for a period of 3 months at a time under Sec.307(a) and also prosecute the owner/agent under Sect.307(b) of the Act; the money spent is recoverable from the owner in the manner laid down in Chapter VI of the Act Clause-6) In case of epidemics engulfing the ahata/tenements, it is the duty of the owner/agent to notify the Medical Officer of Health within 24 hours of the seizure of the epidemics or infectious diseases and death. So also the owner/agent will maintain a Register on the premises - showing the names of the heads of the families - occupying the tenements and the total number of inmates, dates of white-washing, repairs etc. He will also paste the Bye-Laws (as required under Bye-Laws Clause-2) within the ahata/tenements; the copy of the Bye-Laws being supplied free of cost by the Municipal Corporation to the owner/agent. (Clauses 13 and 16)

(b) Water Supply

2.26 For water supply, it is compulsory for the owner to arrange under the street of ahata 'so that at least one $\frac{1}{2}$ " tap diameter is provided for every 10 tenements; the sizes of the tap connection (with meters) being variable according to a scale:-

I. $\frac{1}{2}$ " tap with $\frac{1}{2}$ " connection } 6 families (Note:-It is as well provided that the
II $\frac{1}{2}$ " tap with $\frac{3}{4}$ " connection } 7-12 families distance of the taps
III $\frac{1}{2}$ " tap with 1" connection } 12 and over "distance of more
shall not be at a than 200 ft. from
the farthest tenement)

It is also provided that, in the absence of the supply of water that the owner will make arrangements for the supply of wholesome water in an approved well-fitted with a hand-pumps; and the well will be cleaned periodically (clause-7).

Degree of over-crowding

2.27 Overcrowding is to be eschewed; accordingly a sleeping room should not have a 'less than 500 c.ft. of space' per person - any dilution of this, will amount to creating a condition of "overcrowding"; with a proviso that the height of the room about 12' will not be counted for the cubic space and children below the age of 12 years shall be counted as 'half'. An infringement of this provision which is known to the owner/agent will make him liable for causing 'overcrowding' - and so also the habitants will also be liable for this infringement. (Clauses 8, and 9)

Repairs and lighting

2.28 The owners will keep the premises properly repaired - including, buildings, drainage, pavements, latrines etc.- and every house and tenement shall be white-washed once a year as also the lighting of the common staircases and passages. So also every tenant is required to maintain daily cleanliness of the portion occupied by him. On compliance of the above provisions allow the Medical Officer of Health (1) to prosecute the owner/agent under Section 307(a) and-(b) - and to recover the expenses as laid down in Chapter-VI of the U.P. Municipalities Act.

Penalty

2.29 A breach of Bye-Laws is punishable with fine which may extend to Rs.500/- and in case of continuing the breach a further fine to the extent of Rs.500/- for every day after the date of the first conviction, during which the offender is proved to have persisted for six weeks, the corporation may cause the breach to be nullified by executing the work or action required and recover the expenses according to Chapter VI of the U.P. Municipalities Act, 1916.

Growth of slum settlements, from mid-1950's to mid-1970's in Kampur and their clearance & Improvement

2.30 Within the ambit of the Ahatas Bye-Laws (as detailed above in para 2.27) and U.P. Municipalities Act, 1916 as also according to the conditions laid down under different stages of 'Slum Clearance Scheme' (from 1949 and thereafter from 1952 in regard to SIHS - and actually from 1956 the formal initiation of this particular scheme

under 1956 Slum Areas Improvement and Clearance Act

(See Annex 2.01) in the country about 150,000 tenements were raised to ameliorate the housing conditions of the slum-population at a cost of Rs.700 millions by the end of 1974. This resulted as an after effect of the angry observation of the Prime Minister Jawahar Lal Nehru in 1953 on his visit to Kanpur about the inhuman conditions prevailing in the slums of Kanpur. The share of Kanpur, in this effort was to the extent of 5,924 tenements by December 31, 1974 with an investment of Rs.30 million; most of these tenements were raised in the Mohallas/Ahadies of Vijai Nagar, Babupurwa, Ajitganj, Juhi Safed Colony, Juhi Pili Colony, Param Purwa, Dhaknapurwa, Gwaltoli etc.

2.31 Thereafter, U.P. Government sanctioned construction of

⁹⁾ 672 small 2-room tenements each with 312 sq.ft plinth area at a cost of Rs.6.1 million - for which the loan assistance to be given was Rs.2.7 million and capital subsidy of Rs.1.7 million, and the balance was to be arranged by Kanpur Nagar Palika/Kanpur Development Authority. Perhaps 360 tenements were completed in 1975-76, in a complex of 3 storcy blocks of 12 tenements - each tenement at a cost of about Rs.10,500/-; consequently KDA's contribution will have risen to about Rs.4 millions. Even the subsidised rent of the tenement works out to Rs.50/- per month. Since this high-level of rent is beyond the paying capacities of the slum-dwellers/industrial workers' families having monthly income of less than Rs.350 p.m., it will be imperative for the K.D.A. to raise the level of subsidy to the eligible tenants.

2.32 In order to improve the environment of the slums under the central scheme of Minimum Needs Programme', (sewers, watermains, road pavements and drains, public latrines & baths, S.W. drains, parks and street light⁶⁾) an expenditure

⁹⁾ These services were: sewers 50,538 R.M.; watermains, 20,980 R.M.; road pavements & drains, 302,450 sq.m.; public latrines and baths, 752; S.W. Drains, 5,640 R.M.; parks, 800 R.M.; and street light, 5000 R.M.

of about Rs.1.41 million was incurred upto December 31, 1974 to benefit a population of about 158,000 persons living in the nine 'abadies' of Harjendra Nagar, Juhi Babruriya, Pratapganj, Omprawa - Pokharpurwa, Kekadeo, Dharknapurwa, Shujatganj, Bahupurwa, Muzarfarpur. During 1975-76, the new schemes of environmental improvement were to extend in 'abadies' of Juhi-Bare Devi and Usmanpur for which the estimated cost was of Rs.1 million.

2.33 To house the 'economically weaker sections of the society' having an income below Rs.250 per month, Kanpur Nagar Mahapalika/Kanpur Development Authority, constructed at Govind Nagar 504 tenements and similar to those done under Slum Clearance Scheme. Under this scheme the capital subsidy is 50% and 50% is loan assistance - so that the rent subsidy also is 50% consequently.

2.34 To improve supply of dwelling units for the needs of the Harijans, in 21 areas, 848 pucca tenements have been constructed for which the monthly rent charged from the occupants is nominal (that is, Rs.5 only per month). So also Dalel Purwa and Bhaisa Godown, 216 tenements in three-storeyed blocks for 216 tenements, the construction work was commenced after the foundation stone was laid on August 15, 1974, by the then Chief Minister Shri H.N. Bahuguna. The project was estimated to cost about Rs.1.7 million; and each of the tenements' size will have a room of 100 sq.ft. with a cooking-cum-multi-purpose verandah of 60 sq.ft. along with separate flush W.C. and a bath-room.

10) The number of tenements 21 area-wise were: Bhaisa Godown, 134, Old Kanpur, 36; Natwarganj, 12; Govind Nagar, 48; Fazalganj, 14; Birhana Road, 40; Ter Bangliya, 30; Sarsaiya Ghat, 12; Chamanganj, 16; Phul Bagh, 15; Bramh Nagar, 13; Intouche Road, 91; Kakadco, 120; Khalasi Lane, 44; Laxmipurwa I, 30; Anwerganj, 20; Moti Mahal, 36; Baba-ki-Kutiya, 48; Laxmipurwa, 54; Juhi, 10; and Raipura 25- making a total of 848 tenements.

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2.35 To inject relevance, for purposes of comparability, could be meaningful to draw from the "Indicators of Housing Levels of Living" as developed by the family of United Nations and its Specialized Agencies. A brief statement on this aspect is therefore given in the following paragraphs with a little historical base as it will help to judge the provisions of Shata Bye-Laws with the U.N. Indicators.

2.34 Right from the formulations of the Engels' law, it has been believed that food, housing and clothing and other expenditures of a family are regulated in percentage distribution according to variations in family income. New formulations of consumer behaviour have changed the proportional structure - though not its general frame. Long-term data of national consumer expenditure suggest that next to food, housing has an important place, and clothing comes afterwards in the consumer budgets of various communities (See Annex 2.01). It can be observed that the proportion of consumer expenditure on 'food' becomes low in the developed countries as compared to developing countries of Asia and Latin America. On the other hand, the proportion of expenditure on 'housing and housing services' is relatively more/ ^{in developed countries -} and many a times, it is twice or thrice that of the proportion spent on 'clothing'. Broadly, an inference can be averred as the income of the families' increases, the consumer expenditure on 'food' declines and that on 'housing and housing services' increases - whereas the proportional expenditure on 'clothing' remains almost static. It thus follows that an increase in the proportion of the consumer expenditure on 'housing and housing services' is an affirmative and a positive and perspective indicator of progress.

2.37 To develop the indicators of housing levels of living, various conferences and working groups of the U.N. Economic Commission for Europe and the Statistical Office of the United Nations thrashed out three groups of indicators which jointly determine the housing levels of living:

(1) four basic¹⁰⁾ indicators; (2) five supplementary¹¹⁾ indicators; and (3) thirteen subsidiary indicators¹²⁾ complex.

2.04

2.38 Annexure L gives the information available through the Housing Census or Housing Survey either around 1961 or 1971 in various ESCAP Region Countries in respect of the potentials for building 'housing levels of living' in conformity with the indicators developed by the UN System. Also, it is relevant to mention that the UN Statistical Year Book - 1973 and the UN Housing Statistics Compendium - 1973 also give information on these indicators in respect of a large number of number countries.

2.39 It can be commented that the above indicators were thrashed out about 16 years ago and their application, in all cases must not have stood the test of time. In the light of experience it is, therefore, logical that some more analytical work should be mounted to assess the objective dynamics of housing levels of living - in particular, in

- 10) B₁ is percent of population living in conventional dwellings; B₂, means percent of occupied dwellings with three or more persons per room B₃, means percent of occupied dwellings with piped water inside dwelling or outside dwelling but with 100 metres; and B₄, means per cent of houses served with toilets.
- 11) S₁ connotes percent of the population living in housing units classified as 'rustic', or improvised, and not intended for habitation, or without shelter of any kind; S₂ connotes average number of persons per room; S₃ connotes percent of occupied dwellings with toilets other than flush toilets (urban); S₄ connotes percent of occupied dwellings with toilets other than flush; and S₅ connotes index of dwellings construction in relation to the estimated requirements.
- 12) Thirteen subsidiary indicators are: (i) cooking facilities; (ii) bathing facilities; (iii) electricity; (iv) type of buildings; (v) year of construction; (vi) material of wall; (vii) material of roof; (viii) material of floor; (ix) state of repair; (x) floor space; (xi) out-door space; (xii) rent; and (xiii) ownership.

relation to the supplementary indicator S5, i.e. "Index of dwelling construction in relation to the estimated requirements". This index is dependent on the correct assessment of the requirements say, for a period of five years, ten years or, say, twenty-five years in the light of new requirements, elimination of the backlog of shortages, depreciation and obsolescence, vacancy ratio and the changes in the level of demand for quantitative dwelling units, following rise in income levels. In relation to this demand, the net supply of housing during the specific period need to be related, in order to obtain "index of dwelling construction", to the estimated net requirements (i.e. S5).

2.40 The rate of residential building activity is also expressed quite often in the United Nations Statistical documents as a "number of new dwellings produced in relation to 1,000 population in a year". Quite a number of member nations of the United-Nations also use this 'measure' to describe a state of ex-post activity and use it in relation to fixing the target rate per annum in relation to 1,000 population, a year.

13) See Table 2.03 (column 19) pp. 783-779 of the 1972-United Nations Statistical Year Book, 1972. The rates per thousand of population for different countries range from 0.7 dwelling units in Algeria to 28.5 dwelling units in French Guiana. Countries having a rate of about 10 dwelling units (or more) are: Israel and Ryuku Islands(14.6), Japan (14.5), Republic of Korea (11.4), Mongolia (9.1), Singapore (8.5), Iceland (8.4), Spain (9.0), Sweden (13.6), Switzerland (10.4), American Samoa (8.9), Australia (11.3), New Zealand (10.0), USSR (12.1). Whereas developing countries largely have a rate around 2 to 3 units or lower; countries less than '2' units are: Algeria (0.7), Egypt (1.7), Chile (1.8), Tunisia (1.2), Dominican Republic (0.6-0.9), Grenada (0.641), Colombia (1.0-1.2), Iraq (2.0), Sri Lanka (1.5), Christmas Island (1.0), Papua-New Guinea (0.1), Western Samoa (1.7).

S U M M A R Y

This Chapter after presenting the dynamics of two decades (that is mid-1950's to mid-1970's) based on (a) Mazumdar's report; (b) institution of Ahata Bye-Laws under Section 15(2) of the Kanpur Urban Area Development Act, 1945 and ^(c) Slum Clearance and Sweeper Housing Scheme commencing in Second Five Year Plan; certain quantitative data are presented as regards the retrospect and the perspective.

It may be noted that under the Slum Improvement and Clearance Act(s) 1956, the total number of tenements provided in the country were about 115,000 upto the end of 1974 of which in Kanpur city 5,924 tenements were built at the cost of Rs.30 millions.

All through statistical picture is indicated for different periods within the two decades; this includes a graphic account of the development of the Subsidised Industrial Housing Scheme and the Slum Clearance and Improvement Scheme at different times in the various five year plans. These, no doubt, include developmental elements for essential and community services. Regarding

The relevance of measuring the changes in the quality of housing levels of living, a brief account of the manifold indicators that have been thrashed out by various international organisations - particularly the United Nations and its Specialised Agencies are considered sharp, scientific and meaningful. These indicators have a complex having three groups: (i) four basic indicators; (ii) five supplementary indicators; and (iii) thirteen subsidiary indicators.

It is important to note the executive agencies for various programmes were the Kanpur Development Board, Kanpur Mahapalika, Kanpur Development Authority; specially for labour housing, Labour Commissioner and private industries in the private sector also took part in implementing the construction of tenements for industrial workers/slum and squatter dwellers.

**Annex-2.01: Estimates of the squatter population in
cities of different countries**

<u>Country</u>	<u>City</u>	<u>Squatter popu- lation</u>	<u>City Popula- tion</u>	<u>Squatter Popula- tion as a percen- tage of city population</u>
1.	2.	3.	4.	5.
AFRICA				
Congo, Demo- cratic Repu- blic of	Leopoldville	area greater than that of the city it- self		
Morocco	Casablanca	(1966) 45,000	(1961) 1,085,000	4.15%
NORTH AND SOUTH AMERICA				
Brazil	Rio de Janeiro	(1960) 900,000	(1960) 788,569	(1961) 50%
Chile	Santiago	....	(1960) 3,223,408	27.92%
Colombia	Buenaventura	....	(1964) 2,184,149	(1964) 25%
	Cali	....	(1964) 110,660	(1953) 80%
Jamaica	Trenchtown	(1961) 8,000	(1960) 123,403	(1964) 30%
	Kingston, Peru	(1961) 2,000 (Both sections of Kingston)	(Kingston)	8.10%
	Kingston	....	(1960) 123,403	12%
Mexico	Mexico City	....	(1950) 2,233,709	(1952) 14%
	Chimbote	....		(1961) 70%
	Iquitos	....		(1967) 50%
Peru	Lima			and over (1950) 10%
Uruguay	Urban areas	(1961) 100,000	(1961) 1,436,231	(1966) 25%
Venezuela	Caracas			
	Ciudad Guyana	(1961) 50,000	(1966) 1,764,274	(1964) 35%
	Maracaibo	....	(1961) 50,000	(1961) 100%
			(1966) 558,953	(1964) 50%
ASIA				
Hong Kong		(1964) 600,000	(1961) 3,133,131	19.15%
India	Old Delhi	(1964) 150,000	(1966) 314,377	47.71%
Indonesia	Djakarta	750,000		25%
Malaysia	Kuala Lumpur	100,000		25%
Pakistan	Karachi	(1963) 600,000	(1968) 2,700,000	22%
Philippines	Manila	(1963) 320,000		23%
China (Taiwan)	Taipei	(1963) 200,000	(1965) 1,135,500	(1966) 15%
Singapore				20%
Turkey	Ankara		(1965) 902,216	(1965) nearly half
			(1965) 902,216	(1964) 45%

Source:- PALVIA, C.M: Housing Market Analysis in Grenada: A
Perspective (United Nations-TAO/GEN/1 March 1970.
Table-1 pages 12-13)

Annex-2.C 2 THE SLUM AREAS (IMPROVEMENT AND CLEARANCE) ACT,
1956

'Land' includes benefits to arise out of land and things attaches to the earth or permanently fastened to anything attached to the earth.

'Occupier' includes (a) any person who for the time being is paying or is liable to pay to the owner the rent or any portion of the rent of the land or building in respect of which such rent is paid or is payable; (b) an owner in occupation of or otherwise using his land or building; (c) a rent-free tenant of any land or building; (d) a licensee in occupation of any land or building; (e) any person who is liable to pay to the owner damages for the use of and occupation of any land or building; (g) any person who is receiving or is entitled to receive the rent whether on his account or on behalf of himself and others or as trustee.

'Slum clearance' means the clearance of any slum area by demolition or removal of buildings and includes execution of any one or more of necessary repairs, structural alterations, provision for light points, water taps and bathing spaces, construction of drains, open or covered, provision of latrines (including conversion of dry latrines into water-borne latrines), provision of additional or improved fixtures or fittings, opening up or paving of courtyards, removal of rubbish and any other work including demolition of any building or a part thereof which in the opinion of the competent authority is necessary for executing any of the works. Slum areas are those when the competent authority is satisfied in respect of any area that the buildings are (1) unfit for human habitation or are by reasons of dilapidation, overcrowding, faulty arrangement of streets, lack of ventilation, light or sanitary facilities or any combination of these factors, are detrimental to safety, health or morals. Competent authority can notify in official gazette and declare such area as slum area. In determining whether the building is unfit for human habitation regard will be given to the following matters such as (a) repair (b) stability (c) freedom from damp (d) natural light and air, water supply, drainage and sanitary conveniences and facilities for storage, preparation and cooking of food and disposal of waste water.

Slum Improvement

Competent authority has the power to require improvement of the building at reasonable expense (with a notice of not less than 30 days). (In case of provision of water taps, bathing places, construction of drains open or

covered, provision of water-borne latrines or removal of rubbish the notice will be served on the owner of the land.) The notice may be served on the owner, lessee, mortgagee etc. as the case may be. In determining the cost of the works the value of the building will be taken into consideration. Regarding enforcement of execution of works of improvements, after expiry of the time of notice competent authority will cover from the owner of the building/land on which the building stands as arrears of a land revenue. If the owner proves that he is receiving the rent merely as agent or trustee of some other person and has not sufficient funds to satisfy the demands of the authority, his liability will be limited to the amount of money he has in his hands. After execution of works of improvement in a building in a slum area, expenses incurred by the competent authority on maintenance will be recoverable from the occupiers. Competent authority, by a gazette notification, can withhold permission to construct any building in the slum area after due notice. The competent authority can order demolition of buildings unfit for human habitation and by notification in the Official Gazette, restrict construction of buildings in slum area. Anybody wanting construction of buildings in such areas will have to apply in writing and grant of permission will be subject to terms and conditions or refused.

The competent authority, upon a report from its officers, declare any slum area to be a clearance area after the expiry of period notified in official gazette. The buildings are to be vacated within the time prescribed in the notification and if necessary, demolish the buildings within six weeks or more before the buildings are required to be demolished. If they are not demolished the authority can demolish and recover the amount spent from sale of materials and, if not recovered will recover as arrears of land revenue.

If the Central Govt. on representation from the competent authority wants to improve and redevelop any clearance area, the Central Govt., after due notification in the official gazette, can acquire the land and make it available to the competent authority. The person is eligible to receive compensation at sixty times the net monthly average income derived from such land during the last consecutive five years. Any person who does not agree to the amount determined by the competent authority may appeal to the Administrator whose determination shall be final and not questionable in any court of law.

The competent authority shall tender payment of compensation on behalf of the Central Govt. to persons entitled or deposit in the court of the District Judge. Proceedings for eviction of tenants cannot be taken without

permission of the competent authority. The tenant will have to be restored in the building after improvement if he desires and rent will be suitably fixed. The rent is to be determined according to general law or annual rent given prior to eviction plus 6% of cost of improvement plus 6% of a sum equivalent to compensation payable or if the building has been re-erected, annual rent of a sum equivalent to 4% of the aggregate cost of reconstruction of the building.

Power of entry into the building, inspection, remove, examine, replace or read any meter, removal of nuisance (expenditure to be borne by the tenant), enter land adjoining the land where work is in progress, open or break doors, gates and other barriers during day time and evicting the occupants, remove offensive or dangerous trades will be vested in the competent authority. Any aggrieved person may appeal to the Administrator whose decision will be final and shall not be questioned in any court.

new . Number of houses/plots sanctioned and constructed under slum
.03: clearance/improvement scheme in States/Union Territories

(Amount in lakhs)

Sl. No.	State/Union Territory	Progressive reports received upto	Number of houses/ plots Sanctioned	Outlay Construc- ted	Expen- diture	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
States						
1.	Andhra Pradesh	December 1974	11,621	7,079	294.62	250.32
2.	Assam	-	NA	NA	NA	NA
3.	Bihar	December 1974	2,300	475	36.35	27.29
4.	Gujarat	December 1974	16,150	10,422	NA	463.95
5.	Haryana	December 1974	74	-	2.67	-
6.	Himachal Pradesh	December 1973	-	-	-	-
7.	Jammu & Kashmir	-	NA	NA	NA	NA
8.	Karnataka	December 1973	1,201	733	59.41	52.39
9.	Kerala	December 1974	1,112	655	NA	27.39
10.	Madhya Pradesh	September 1975	6,529	4,713	178.10	129.66
11.	Maharashtra	December 1974	37,000	25,661	NA	1475.76
12.	Manipur	December 1974	3	3	0.26	0.26
13.	Meghalaya	December 1973	-	-	-	-
14.	Nagaland	December 1974	-	-	-	-
15.	Orissa	-	NA	NA	NA	NA
16.	Punjab	December 1974	847	603	28.89	25.28
17.	Rajasthan	December 1974	1,598	984	45.60	43.58
18.	Sikkim	-	NA	NA	NA	NA
19.	Tamil Nadu	December 1974	53,539	30,788	2,257.32	1978.00
20.	Tripura	December 1974	60	60	1.93	1.98
21.	Uttar Pradesh	December 1974	10,030	8,349	434.00	386.21
22.	West Bengal	-	NA	NA	NA	NA
Union Territories						
23.	Andaman & Nico- bar Islands	December 1974	-	-	-	-
24.	Arunachal Pradesh	December 1974	-	-	3.00	-
25.	Chandigarh	December 1974	-	-	-	-
26.	Dadra & Nagar Haveli	December 1974	1,840	516	72.32	14.71
27.	Delhi	December 1974	-	-	-	-
28.	Goa, Daman & Diu	December 1974	9,342	10,555	814.60	714.50
29.	Lakshadweep	December 1974	1,214	1,100	28.43	7.05
30.	Mizoram	December 1973	-	-	-	-
31.	Pondicherry	March 1975	582	128	11.83	9.99

Note: The scheme was introduced in 1956. It provides for: (a) acquisition of slums and rehousing of the families whose income does not exceed Rs.350 p.m. (b) improvement of environmental conditions in existing slums, and (c) construction of night shelters. The Union Government gives financial assistance in the form of 'block grants' and 'block loans' to States/Union Territories for implementing the scheme.

NA : Not available

Source: Ministry of Works and Housing, Government of India, New Delhi.

: 59 :

Annex-2.04 : National Minimum Needs Programme in Draft
Fifth Plan

Item	(Rs. crores)	
	Expenditure in the fourth plan	Outlay in the fifth plan
(1)	(2)	(3)
1. Elementary education	225.88	451.51 ¹⁾
2. Rural health	22.79	291.47
3. Nutrition	1.38	530.20 ³⁾
4. Rural water supply	165.11	554.00
5. Rural roads	206.28	498.00
6. House sites for landless	4.46	107.95
7. Slum improvement	6.91	94.63 ²⁾
8. Rural electrification	427.11	276.03
9. Total	1059.92	2803.79 ⁴⁾

- 1) This is in addition to Rs.249.52 crores for support programmes under Elementary Education.
- 2) This is in addition to Rs.400 crores under Rural Electrification Corporation.
- 3) Including CARE assistance in the form of food mainly for mid-day meal programme.
- 4) Excluding outlays for Union Territories.

**Annex-2.05 Total Investment and Investment in Housing in
Five Year Plans in India**

(Rupees in crores)															
1st Plan			2nd Plan			3rd Plan			4th Plan			5th Plan			
Housing Total	%	Housing Total	%	Housing Total	%	Housing Total	%	Housing Total	%	Housing Total	%	Housing Total	%	Housing Total	%
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	
Public	250	1560	16	300	3659	8	425	6100	7	625	13655	5	1044	31400	3
Private	900	1800	50	1000	3100	32	1125	4300	26	2175	8980	24	3636	16161	22
Total	1150	3360	34	1300	6750	19	1550	10400	15	2800	22635	12	4689	47561	10

N.B. Percentages in Columns 3, 6, 9, 12 and 15 relate to investment in Housing & percentage to total Plan Investments.

Chapter-III: Base Situation/and the Sample Design(i) Slum
and squa-
tter Areas
and their
sizes

3.01 The Integrated City Development Programme for Kanpur Metropolis (1975-81), noted (refer, page 22) that the growth in housing construction in Kanpur city did not keep pace with the growth in population; and the lure for employment attracted immigrants which resulted in overcrowding and mushroom development slums-dotted all over the city. The slums are housed, by and large, by Ahatas which numbered 812, in early 1950's, but perhaps the number of ahatas remained around this number; but the number of slum dwellings increased at a faster rate resulting in further increasing the congestion from one census period to the other. The density per room (which is equivalent to a house for one slum family/household) mounted to '4.9', persons, in 1961, from '3.9' - noted by the Kanpur Development Board's survey -conducted in 1948. So also average household size which was 4.5 in Kanpur city in 1961, rose to '5' in 1971 and perhaps reached to 5.5 for the year 1976 - because the rate of supply of dwelling units very much lagged behind in the growth of households and population. Slum population, estimated was 0.5 million, by KDA, for the year 1975.

3.02 The ICDP period of 6 years (1975-1981) visualises phasing of different schemes to be implemented for immediate benefit largely for the unprivileged population of the community. The schemes relate to provision of residential plots for: (a) economically weaker sections; and (b) low income group. In regard to housing the coverage is for (a) sites and services; (b) core housing; (c) economically weaker sections; and (d) low income group. The Programme further looks to provision for (a) district centre; (b) industrial area; (c) essential and welfare services - for education, hospital, water supply, cattle colony, parks and open spaces, Transport Nagar and bus terminus etc. The Programme envisages a total cost of Rs.497 million both for land and housing cost. It also envisages differential rates of interest to be charged. From different groups of the population ranging 7.5-9.5% per annum.

1) Integrated City Development Plan for Kanpur Metropolis (1975-81)

3.03 According to 1951 census, Kanpur city had a population of about 705,000; in 1961, 971,000; and in 1971, 1,275,000. By interpolation and extrapolation, for the mid-1950's and mid-1970's, population of the city comes to 840,000 and 1,500,000. The 1951 population size also included areas at a distance of 5-6 miles, such as 50,000 middle-class living in civil area, 13,000 of Railway colonies, 11,000 of ^{1a)}Amapur and about 46,000 of sub-urban of about 20 chaks - making a total of 120,000. The suburban areas lacked urban amenities (of electricity, water/supply, sanitation, roads and paved lanes) and they were typically living a village life of them quite many were cultivators and artisans; this ^{embraced by the term} ~~rurban~~ population, however, though typical is / 'squatters'. Excluding the above non-industrial population of 120,000 as also the population living in Kanpur cantonment from the 1951 total population of 705,000, the Kanpur industrial metropolis', in 1951, thus had a population of about 555,000.

3.04 A list of households, for the industrial metropolis was obtained in mid-1950's by a survey Team (headed by Professor D.N. Mazundar) from Kanpur Municipal Corporation 1953-revised Assessment Register ²⁾; the information culled related to head of the household, his occupation, rent paid etc. and it provided a workable base for sampling. This Survey-cum-Study ³⁾ is perhaps the first on industrial Kanpur's variegated economic and social conditions.

^{1a)} Suburban chaks were: 1-6(North West), 83 and 83-A(Southern) and suburban chaks - as numbered within brackets of

Bhutta Arja (123), Binnikpur (124), Debeuli (126), Fazalganj (129), Gutaiya (131), Jahanpurwa (133), Jeora (134), Kakadeo (137), Lekhanpur (143), Lelanpurva (144), Mohsiupur (146), Nasimbad (149), and Nizampur (156).

& others. 2) Mazundar, D.N. Social Contours of An Industrial City-Social Survey of Kanpur 1954-56 (Asian Publishing House, 1960 pp.242)

3) The survey-cum-study was financed by the Research Programme Committee of the Planning Commission, Govt. of India.

(ii) R.P.C.
Survey
Strategy
and mid-
1950's
data

3.05 The R.P.C. Survey followed a two-stage stratified sampling: first stage consisted of 60 percent of the mohallas at random, with probability proportional to the size of mohallas (locally called 'chaks'); the second stage consisted of 8.3 percent sample of households - selected from each of the selected first stage mohalla units - and the selection was with equal-probability and without replacement. The present Survey-cum-Study: Kanpur - a city of slums - Socio-Economic-Policies and Programmes and their Administration (1920-2001), partly follows the strategy of the R.P.C. Survey and partly introduce departures for reasons given in paragraph..... The first stage relates to the listing of the slum and squatter settlements and around Kanput city; and the second stage relates to an over-all one percent sample of about 100,000 slum and squatter households holding roughly a population of about/over 500,000 - forming about one-third of the estimated population of 1.5 million in 1976 (when the survey was commenced) of Kanpur city.

3.06 To recall, in mid-1950's, the number of slum and squatter settlements (locally called 'Ahatas')⁴⁾ noted was 812 - for the year 1948 - holding 1,23,775 persons in 33,385 rooms, giving an average density per room of 3.9 persons. An Enquiry by the Regional Office of the Employees State Insurance Corporation, in mid-1950's, came to the conclusion that 65.2 percent of the tenements occupied by the industrial workers could in no way be said to be fit for human habitation; and it also observed that approximately 20 percent⁵⁾ of the population lived in slums - in and around 1950's.

4) See Chapter-II for the provisions of Ahata Bye-Laws - under paragraphs 2.20-2.26.

5) D.N. Mazumdar & others: Ibid - page 35.

3.07 It is interesting that even upto 1976, the number of Ahatas remained almost around 800⁶⁾ - in spite of a 'time-gap' of 28 years since 1948 and the quadruple multiplying of the slum population to about/over 0.5 million from 0.125 million in 1950's; the natural corollary being more congestion and overcrowding, pressure on already very poor essential and community services - adding cumulatively misery to the metropolis at least one-third population - who even a quarter century before lived in dwellings of which 65.2 percent were not fit for human habitation as was revealed by ESIC Enquiry.⁷⁾ The 'Integrated City Development Programme for Kanpur Metropolis 1975-81' (1975) observed the growing misery of the slums: slums are "chaotically occupied, unsystematically developed and generally neglected area which is over-populated by persons and over-crowded with ill-repaired and neglected miserable structures. The area has insufficient communication, indifferent sanitary arrangement and inadequate amenities necessary for the maintenance of physical and social health and the minimum needs and comforts of human beings and community. There is general absence of social services and welfare agencies to deal with major social problems and facilities, in respect of sub-standard health, inadequate income and low standard of living, who are victims of biological, psychological and social consequences of physical and social environment".⁸⁾

i) Mid-1976 Survey of Ahatas

3.08 Incidentally, a survey of 'Ahatas' was being conducted during 1975 and 1976 by Kanpur Development Authority; therefore, it was that the benefit of this survey could be fruitfully made for the present study.

6) Kanpur Development Authority: Integrated City Development Programme for Kanpur Metropolis - 1975-1981 (page

7) Refer to paragraph 4.04

8) Ibid: page, 28.

A Schedule⁹⁾, suitable to our needs, for slum and squatter clusters was prepared and the Authority was requested to transfer from their ^{questionnaire} data to ours^{to}.

The Authority gladly agreed subject to a modest over-time allowance to their staff who were to sift the data. This came handy. The list of 'Ahatas' was not complete nor the data were exhaustive, but the coverage was quite meaningful to satisfy the elements of first stage survey.¹⁰⁾

The coverage related to 675 Ahatas¹¹⁾ (which in any case was more than 80 percent of total Ahatas in Kanpur city) spread over 15 mohallas. Before starting the household survey, a long-waiting for District Census Handbook of Kanpur city for 1971-census could not be avoided; and this anxious and patient/could not be prolonged further; even upto March 1977 the Handbook was not published. Earlier also, the repeated attempts to obtain the manuscript of the Handbook or the raw material from the Census Superintendent of U.P.

notwithstanding the courtesies of the Office of the Registrar General and Census Commissioner could not fructify. If such data could have been available, it is true that more authentic and up-to-date base of 1971 would have provided more profitable exercise, since the data of households, housing amenities etc. (even for 'Ahatas') could have been available. Consequently, reliance was put on K.D.A. 'Survey of Ahatas'- and also complementary data of 1961 - District Census Handbook of Kanpur were widely drawn. Kanpur Mahapalika's (A Wing of the K.D.A.) actions in notifying 'Ahatas' and slums under Ahata Bye-Laws and Slum Improvement Act, 1956,

9) See Annex 3.01 & 3.01-A

10) The last instalment of filled-in Questionnaire reached at the end of July 1976.

11) Numbers of Ahatas for 15 Mohallas are given within brackets as follows: 1. Darshanpurwa (285); 2. Kaushal puri (58); 3. Juhi Jarev (13); 4. Bans Mandi (12); 5. Bakar Mandi Karnal Ganj (13); 6. Nababganj (10); 7. Kuli Bazar Dhan Kutti (6); 8. Collectorganj (7); 9. Anwarganj (5); 10. Fazalganj (5); 11. Arya Nagar (5); 12. Chiniganj (6); 13. Raipurwa (106); 14. Chamanganj (141) and 15. Civil Lines (1). (For details see Annex 4.02 and 4.03). Some small 'ahatas' have less than 50 persons, such as Gausala Jijman (22); Ram-Kishan-Ka-Ahata (24); Narain Darji-Ka-Hata (30); and Chhotey Mayar-Ka-Hata (38).

were primarily motivated for purposes/city planning and stage by stage to accelerate implementing of slum improvement and clearance programme. These factors thus form pertinently meaningful for our first stage to be helpful for the second stage of household survey. (12)

3.09 The total number of households/families, in 675 Ahatas surveyed by K.D.A., was 20,215 which held a population of about 123,000 persons - giving an average household size of about 6 persons. The Questionnaire coverage was in regard to (1) physical structure of the land, type of roads/lanes, shopping centre and educational institution, police post, sources of water supply, bathrooms, drainage, lighting, public latrines, recreation and religious centres, community centre etc. The results of this could be of use to us - but in a limited way because of various constraints. The main parameters emerging were the number of 'Ahatas' in a mohalla/chak , number of households/families, and their population size-as mentioned above. An exercise is done to classify the size of the 'Ahatas' according to population sizes and the number of households in different classes - as shown in Table 4.01.

Table 3.01: Classified Distribution of Population of Slum and Squatter Ahatas and the Number of Ahatas and Households Families.

Cluster Group	Population classes of Ahatas	No. of Ahatas
1.	2.	3.
I	upto 50	247(37.0)
II	51-100	163(24.0)
III	101-200	143(21.0)
IV	201-500	80(12.0)
V	501-1000	27(4.0)
VI	Abov. 1000	15(2)
Total		675(100.0)

Note: Figures within brackets indicate percentages.

(12) For the list of 'Ahatas' see Annex-3.02.

(iv) Sample Size and Design

3.10 The Mohallas/Ghaks, in Kanpur, have a number of 'ahatas' - some mohallas even have more than 100 ahatas; and a few mohallas like Darshanpurva have about 285 ahatas' - with 5,000 households holding more than 20,000 persons. There ^{are} squatter settlements also in Kanpur of which the living conditions are parallel to that of slum colonies - and the population living in this type of settlements are estimated at about one-fourths of the slum population. Slum population, as estimated by Kanpur Development Authority, for 1975, was around 0.5 million, of which those who live largely in slum ahatas, are 0.4 million and those in the squatter settlements are 0.1 million. This proportionality of 4:1 between slum-dwellers and squatters is perhaps a good guidepost for further analysis - and in arriving at the sample design. In order to canvass the interview schedule it was decided to survey 1000 households: 800 slum households and 200 squatter households - and these ^{rations would be} proportionate to ^{as} population of slum and squatter clusters - (the clusters ^{are} widely distributed geographically in different parts of the city. Table 3.02 gives the distribution of the households, as surveyed in different sizes of Ahatas: there were 407 households (313 in slums and 94 in squatters) in ahata size class of 'upto 50 persons'. 175 households (155 and 20) in ahata size class of '51-100 persons'; 137 households (15 and 22) in ahata size class of '101-200 persons'; 119 households (84 and 35) in ahata size class of '201-500 persons'; 61 households (46 and 15) in ahata size class of '501-1000 persons'; and 101 households (87 and 14) in ahata size-class of 1001 and above persons'. This establishes that two-fifths of the households are in the smallest size of 'ahatas'. In ahata size class of 'upto 50 persons' the corresponding proportion of ^{slum and squatter} households are 76.9 percent and 23.1 percent respectively; population in Ahatas of 51-100, 88.6% and 11.4%

percent; in Ahatas of 101-200 population, 84 percent and 16.00% in Ahatas of 201-500 persons, 70.6 percent and 29.4 percent, in Ahatas of 501-1000 persons, 75.4 percent and 24.6 percent; and in Ahatas of '1001 and over' population 86.1 percent and 13.9 percent. From the above, it appears that ordinarily in smaller Ahatas, proportions of slum-households was lesser and that in bigger Ahatas, more -though it declined after the 'second size-group of Ahatas' and rose again after the fifth size-group of Ahatas. But in case of squatter settlements, the proportion was higher in the first group, but declined by 80 percent in the second group but again rose for the third and fourth groups but declined for fifth and sixth groups - the movement was more cyclical than that for the slum-dwellers clusters.

Table 3.02: Distribution of Slum and Squatter Population according to sizes of the Ahatas groups.

(1) Sl. No.: Households groups of Ahatas	(2) size	(3) Slum Population	(4) Squatter Population	(5) Total
1. upto 50		{ (76.90) 313 (39.00)	{ (23.10) 94 (47.00)	{ (100.00) 407 (40.70)
2. 51-100		{ (88.60) 155 (19.40)	{ (11.40) 20 (10.00)	{ (100.00) 175 (17.50)
3.101-200		{ (84.00) 115 (14.40)	{ (16.00) 22 (11.00)	{ (100.00) 137 (13.70)
4.201-500		{ (70.6) 84 (10.50)	{ (29.40) 35 (17.50)	{ (100.00) 119 (11.90)
5.501-1000		{ (75.40) 46 (5.80)	{ (24.60) 15 (7.50)	{ (100.00) 61 (6.10)
6.1001-and over		{ (86.10) 87 (10.90)	{ (13.90) 14 (7.00)	{ (100.00) 101 (10.10)
Total		{ (80.00) 800 (100.00)	{ (20.00) 200 (100.00)	{ (100.00) 1000 (100.00)

Note: The 'figures within brackets'-above the absolute figures -indicate horizontally the percentages/within the particular Ahatas group; whereas the figures within brackets - below the absolute figures-indicate vertically the percentages in each Ahatas group sizes distributed for 800 slum households and 200 squatter households.

3.11 It is obvious that in cluster Group-I, there are 310 ahatae holding 2,642 households (13 percent of the 20,215 total households - in all the 675 'ahatas); in Group II, 136 ahatae and 1,749 households (8.75 percent); in Group III, 141 ahatae and 3,643 households (18 percent); in Group IV, 80 ahatae and 4,216 households (21 percent) and in Group VI, 17 ahatae and 4,688 households (23.15 percent).

3.12 Again, in Group I the number of Ahatas is 310 (forming 43.5 percent of a total of 675 ahatas), but they hold only 13 percent of the total households; thus these ahatae are smallest in size but large in number; at the same time these are distributed over a wide area of the city's agglomeration. Naturally such a wide distribution of household clusters/ahatae and their sprawl would have varying characteristics in regard to physical structures of sand, soil, topography, origins of migrants, social and cultural habits and ethos, living standards, family size, consumption pattern, amenities in and around the dwellings, expenditure and saving pattern, health standards, educational levels etc.

3.13 On the other hand the large sized ahatae of Groups III, IV, V and VI are smaller in number having larger number of families/households and population. Naturally these four groups of ahatae will have a larger homogeneous elements and characteristics and less of heterogeneous elements and characteristics in regard to various indicators of social, cultural and economic levels of living. In view of those aforesaid factors it was

13) Nonetheless, it is true that slums and squatter settlements, in some way, form usually a homogeneous universe of the weaker sections of the community -with low per capita income/expenditure levels, low rent-paying capacity for the houses occupied; and only a very few households touch the thresholds of income/expenditure/savings levels of the middle-income stratum of the population.

considered pertinent to take a bigger sample from smaller shatas in order to contain wide spectrum of features and characteristics in different shades of slum dwellers and squatters with different shades of cultural, educational, and social background of original residents of Kanpur as also that of the migrants during different periods of time from the neighbouring districts from the state and the country as revealed by the following table:

Table-3.03: Percentages of Migrants, origins and Timings of entry in Kanpur (pre 1940-1955)

Time of Migrations	Same district (i.e. Kanpur)	Neighbouring Districts		Other Districts of U.P.		Other States	Other countries (mostly Pakistan)	
		R	U	R	U			
1951-55	1.09	3.30	0.67	4.55	1.72	0.48	2.30	0.09
1946-50	1.25	5.41	0.78	7.62	2.91	0.68	1.84	1.48
1941-45	1.93	4.70	0.51	7.78	1.90	0.36	1.45	0.13
Prior to 1940	7.65	14.78	2.57	12.58	3.61	1.97	1.55	0.35
Total	<u>11.92</u>	<u>28.19</u>	<u>4.53</u>	<u>32.53</u>	<u>10.14</u>	<u>3.49</u>	<u>7.14</u>	<u>2.05</u>
								99.99 (or 100.00)

Note : R stands for rural areas and U for urban areas
B.N. Mazumdar: Ibid (Table-VI, page 72)

3.14 From Table 3.03, it is obvious that the migrants generally lived in slum or squatter settlements, during different time-periods. The migrants compositions were different; for example, during 1940-1955, 11.92 percent from Kanpur district itself; 32.72 percent, from neighbouring districts; 42.67 percent, from other States of U.P.; 10.63 percent, from other States of India; and 2.05 percent from other countries. Nonetheless, the origin from rural areas of the migrants constituted nearly two-thirds of the total migrants during this period. However, the distribution proportions reduced a little from one quinquennial period to the other; but the differences were

notable from pre-1940 to 1951-35 as the data indicate. (Refer to Table 3.03). It is important to emphasize either that, the shares of proportion of all the migrants /^{or} from within Kanpur district, /from neighbouring districts, and other districts of U.P. were invariably higher for pre-1940 period and later on these declined without exception for three quinquennia since 1941. Though it is true that in the quinquennium there increases in the inflow of migrants /from abroad i.e. Pakistan primarily due to the partition of the country and in-migrants were mostly from Pakistan.

Table 3.04: Origins of slum and squatter dwellers and the proportions.

<u>Originally Native Places</u>	<u>Slum dweller</u>	<u>Squatter dweller</u>	<u>Total</u>
Kanpur district	405 (50.60)	97 (48.50)	502 (50.20)
Other district of U.P.	370 (46.30)	95 (47.50)	465 (46.50)
States other than U.P.	25 (3.10)	8 (4.00)	33 (3.30)
<u>Total</u>	<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Note:-Figures within brackets indicate percentages.

3.15 The data in Table 3.03, also convey that 97 percent of the migrants came largely from U.P. itself in case of the slum and squatter dwellers /as revealed by the present survey in 1976 (the year when survey was done) and little over 3 percent from States other than U.P.; the latter was /around 2 percent for the whole period /pre-1940'-1955'. Again, it is obvious that the migrants belonging to Kanpur district formed 50 percent and it provides a contrast of the immigrants who formed little less than 12 percent for the whole period /pre 1940-1955'. Or it is due to good insulation within Kanpur city - that more of the migrants were from the district - and persons from

districts other than Kanpur formed a lesser proportion than what was in the period "pre-1940-1955 which was about 75 persons: 64 from rural areas and 11 percent from urban areas.

3.16 as stated earlier in para 3.10 The sample size taken for the survey is 1000 households (more precisely, the heads of the households): 800 slum households and 200 squatter households.¹⁴⁾ The sample thus forms 1 percent of the universe of about 100,000 total slum and squatter population.¹⁵⁾ In the survey, in regard to levels of living, it was thought more meaningful to take expenditure data of the households rather than income data as also the savings amounts of the households; broadly the sum of the expenditure and savings conceptually makes the income levels of the respective households in Keynesian frame.

3.17 The household schedules was done by local interviewers - who were generally post-graduate students of local colleges under the leadership of a local college professor. The interviewers were given training which included orientation under the guidance of project's senior investigators in filling the interview schedules as well as (a) spot-checking the correctness of the entries made by the interviewers.

3.18 The survey was to be started in January, 1976; however, crystallisation of preliminaries took time; resultantly, the actual survey was conducted in July and August, 1976. Rain and water-logging of slums rendered accessibility to respondents difficult at times. Illness of some interviewers also delayed the field work.

14) The knowledgeable officers of KDA/KM were of the view that the ratio of the sample could be 4:1 between slum households: squatter households.

15) With the sample size of 1000 in the universe of 100,000 households, the coefficient of variation of per capita expenditure comes to less than 0.05 (or 5 percent); where, Co-efficient of Variation = $\frac{1006}{m}$; $m = \sqrt{\frac{(x-x)^2}{n}}$

$$m = \text{Mean}$$

16) For Household Schedule see Annex-3.03.

3.19 An ~~interesting~~ difficulty was faced in slums inhabited by the Muslims. Some questions on the family composition and practice of family planning methods in ~~the Schedule~~ made the Muslim inhabitants as they ~~were~~ suspected our motive. But when the matter was explained to the leaders of the slums, the respondents cooperated.

3.20 Secondary information was collected from the office of the Registrar-General, New Delhi and his regional offices at Lucknow, ^{as also} offices of the Labour Commissioner and Chief Medical Officer, Kanpur, Kanpur Development Authority and Kanpur Maha Palika and District Statistical Office.

3.21 The sponsoring agency (namely, National Buildings Organisation), while inviting a project proposal, from Indian Institute of Public Administration, for conducting survey-cum-studies from cities of Ahmedabad, Bangalore, Delhi, Hyderabad and Kapur (vide their letter No.5(109)/75-SE of May 22, 1975) had mentioned following objectives for the survey-cum-study:-

- (i) to assess the size of the population living in slums and squatter colonies;
- (ii) to study the origin of the residents and the process of the formation of slums and squatter colonies;
- (iii) to obtain data on socio-economic characteristics of the residents;
- (iv) to study the characteristics of housing accommodation available;
- (v) to elicit information about available public conveniences, amenities and other community facilities;
- (vi) to appraise critically the operation of schemes of slum clearance /slum Improvement and suggest modifications;

- (vii) to suggest measures for improvement of existing slums and squatter colonies;
- (viii) to suggest measures for prevention of new slums/squatter colonies; and
- (ix) to estimate financial and physical resources needed for solving the problem.

3.22 Indian Institute of Public Administration suggested that 'one-point-study' of the four cities (namely, Ahmedabad, Bangalore, Hyderabad and Kanpur) should be done - within which a dichotomy might be noticeable by two sub-divisions, namely two old industrial towns of Ahmedabad and Kanpur on one side and other two newly growing towns more under the spell of new state capitals (namely, Bangalore of Karnataka State and Hyderabad of Andhra Pradesh), which are also having a set-up of industrial complexes as well. The points of differences highlighted were: (1) high population growth rates of 44.14 percent and 43 percent in Hyderabad and Bangalore during 1961-71 - alongwith relatively low rate of population growth in Kanpur and Ahmedabad, of 30.73 percent and 37.36 percent; (2) Ahmedabad and Kanpur having more masculine population - female/male ratio respectively being 834/1000 and 762/1000 ; Hyderabad and Bangalore being less masculine-female/male ratio respectively being 927/1000 and 875/1000; and (3) Ahmedabad and Kanpur having more industrial bastion and a history of more than 50 years of slum and squatter settlements. Whereas in Bangalore and Hyderabad the visible slum and squatter settlements are 2-3 decades old only.

3.23 However, in their own judgment, N.B.O. offered I.I.P.A. a study to be done in Kanpur for which a financial grant was given; and for the other three studies Sardar Patel Institute of Economic and Social Research, Ahmedabad was offered a study for Ahmedabad, and Indian Institute of Economics, Hyderabad for the two south cities of Bangalore and Hyderabad.

3.24 A meeting of the Project Directors to develop on unified approach at all the four cities, was held in Hyderabad on the suggestion of Prof. H.K. Mazumder (Director, Indian Institute of Economics, Hyderabad) which was attended by all the Project Directors. Some issues about 'definitions' and approaches to coverage so as to include 'squatter settlements' in the surveys were discussed and certain agreements were reached.

3.25 Field work in Kanpur was commenced in February 1976, which began with (i) meetings with Shri P.N. Kaul, Vice-Chairman, Kanpur Development Authority; Shri J.V. Badami, Chief Engineer of KDA and Kanpur Mahapalika; Shri Y.K. Raheja, Executive Engineer (Planning) of K.D.A. U.P. Labour Commissioner - Shri H.S. Sharma; District Statistical Officer; Labour Institute, Directorate of Industries, District Census office etc; (ii) visits to slum areas and talking to the slum residents as also to new Slum Schemes. Cooperation of Kanpur Mahapalika was sought in locating the slum and squatter settlements and information in regard to their (i) population; (ii) land area; (iii) occupation of majority of the working residents; (iv) the quantity and quality of the residential units, (v) existence or non-existence of essential and community services etc. in the slum and squatter settlement about which paras 3.07-3.12 can be referred to.

3.26 Actual survey was undertaken in the months of July-August 1976 - in which Household Schedules were canvassed to 1000 heads of the households according to the proportion of 80 percent ^{from} was taken from the slum dwellers and 20 percent ^{from} the squatter dwellers of Kanpur . . .

S U M M A R Y

Almost on the eve of the survey there existed 6-year Integrated City Development Programme for Kanpur Metropolis (1975-81) which also provides the bench-mark data for to develop strategy for the Survey. The slum and squatter population estimated for the year 1975 was 0.5 million.

Again the Kanpur Development Authority was running a survey of shatas; therefore, to up-dated the data about the stock of slum and squatter colonies, the use was made of translating the KDA Survey into a design Schedule prepared by I.I.P.A., which particularly indicated that shatas upto a population of 200 persons represented 82 percent of the total shatas, and those from 201-1000 population formed only 18 percent.

However, in the I.I.P.A survey, the coverage of the households represented varied because the small shatas were in large numbers and dispersed over wide area of the city and their canvass coverage was 70 percent only in place of 80 percent in the shata survey whereas the big size shatas which formed 80 percent in number did have under their umbrella more proportion of the population (and therefore households) the percentage of the household respondent taken is higher.

The proportion of the slum and squatter dwellers was between 96-97 percent from Kanpur district or other districts of U.P. and whereas it was only 3-4 percent of the settlers who came from States other than U.P. Thus the universe of the Survey had a more less homogenous cultural character and there was perhaps no necessity for having differential representation of the cultural groups.

Shatas surveyed through KDA numbered 675 (or 84 percent) of about 800 shatas which harbour slum and squatter dwellers.

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION
ESTATE RING ROAD
NEW DELHI-110001

KANPUR SLUM AND SQUATTER SURVEY

SLUM/SQUATTER COLONY OBSERVATION SCHEDULE

Physical characteristics

Census Ward _____ Census Block _____

1. Name of the slum _____

Population _____

2. Number of dwelling in the slum _____

Length (1) _____ m (ii) _____ m (iii) _____ m

3. Area of the slum _____

Breadth _____ m _____ m _____ m _____ m

4. Open land around the slum

Area _____

Description _____

Use _____

5. Ownership of slum/squatter land

Corporation, Dev. Authority, Government, Railways, Govt. Factory, Gram Panchayat, Private, Others (mention)

6. Types of land

Plane Hilllock, River Bed, Low lying, Railway, Stormwater drain, Other (mention)

7. Particulars of location:-

Approach to the slum _____

Distance from the metalled road (m) _____

Distance from Jeppable road (m) _____

Difficulties in reaching the slum _____

Does the slum have main street? Yes/No

If yes, give numbers _____

(i) Straight
(ii) Zig-zag

8. Work Possibilities of slum dwellers

Major Occupations of Residents (i) _____ (ii) _____ (iii) _____ (iv) _____ (v) _____

None of the major place of work (i) _____ (ii) _____ (iii) _____ (iv) _____ (v) _____

Distance of the major places of work (i) _____ (ii) _____ (iii) _____ (iv) _____ (v) _____

Mode of Transport used : Foot/Cycle/Rickshaw/Bus

Foot/Cycle/Rickshaw/Bus Rickshaw/Bus

Width of main streets
(i) _____
(ii) _____

9. Distance of the slum from nearest (km) $\frac{1}{2}$ $\frac{1}{2}$ -1 $1\frac{1}{2}$ 1-2 $2\frac{1}{2}$ $5-10$ More than 10

- A. City Centre
- B. Traders market (Shopping Centre)
- C. Neighbouring Shopping Centre
- D. Public Transport Centre
- E. Private Transport Centre
- F. Primary School
- G. Model School
- H. High School
- I. Dispensary
- J. Hospital
- K. Police Post
- L. Post office
- M. Bank

10. Slum pattern, Rectangular/Square/Irregular/Any other (describe) _____

Slum pattern

Breadth(m) _____ Height(m) _____ Open space (sq.m.) _____

Slum (i)

Slum (ii)

Slum (iii)

11. Slum type _____

Check the following:

1. Temporary/2. Semi-permanent/3. Permanent: Progress (if any) or

the date of available changed in the last 15 years/since they started. If yes, check as ad/decided

12. Method formed by up-coming a slum in some other ways? Yes/No.

If yes, by self choice/work on previous site was over/private authority demolition /

13. Whether the structures have improved over years ? Yes/No.

If yes, check improvement

From	Kutcha wall	Kutcha roof	Kutcha floor
to	Pucca wall	Pucca roof	Pucca floor

(10)

14. Was the improvement done by the 1. Owner or/2. Occupier or the charter?

Was the cost increased by owner on improvement? Yes/No.

15. Environmental disadvantages of the slum due to location

Noise	Smell	Smoke	Stagnant water	Fire hazard	Dust	Any other (mention)
-------	-------	-------	----------------	-------------	------	---------------------

15. Living Environment

Water Sources:

Items	Wells	Hand Pumps	Public taps	House Connection	If not available where do the people get water (sources-distance)
No. of working					
No. of out of order					
Total					

17. Bath Rooms:

	Male	Female	Total	Any alternative arrangement of residents and difficulties.
No. of water taps				
No. without arrangement of water				

18. Drains

Availability of pucca/kutcha drains
check up the drainage arrangement

(Outflow	0-25%	25% - 50%	50% - 75%	75% - 100%
Air/JR served	"	"	"	"

Household served

Description: Water flow system in the slum

: ex :

19. Lighting

No. of electric poles/lights _____ No. of houses connected
Any other street lights? _____

If kerosene light(dibbia/lantern/or petromax) used for domestic lighting _____

	Male	Female	Total	State alternative arrangement of residents & difficulties.
No. of seats (Water borne)				
No. of seats (dry)				

21. Availability of paved street _____ Yes/No

If yes, percentage of total street

10 - 25% 25% - 50% 50% - 75% 75% - 100% paved

22. Sanitation: Status: Street Cleaning arrangement

Garbage disposal system

23. Education

Whether available in the slum _____
Crchc Balwadi Nursery Primary School Middle School If any other,
Yes/No Yes/No Yes/No Yes/No

If any other,
describe

24. Health: Availability within the slum

(i) Malaria Eradication DDT Vaccination Primary visiting Private
scheme spray Health centre good doctor mobile Doctor
disoansary Yes/No Yes/No Yes/No Yes/No Yes/No

(ii) Availability of nutrition programme: Yes/No, If yes, no. of beneficiaries _____

: 82:

25. Religion/Recreation Programme:

Give numbers
Mandir/Mosque/Church/Gurdwara/Any other

No. of programmes in the slum

Describe any organised religion/recreation programmes in the slum
26. Revision shops: within slum _____ Yes/No, if no, distance from the slum (km)
Name and distance of shops where the slum dweller purchase daily needs.

(1)

(2)

(3)

27. Social Education: What available in the slum:

Craft class	Library	Family planning and related benefits	Adult Education	Any other (mention)
Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

28. Cooperative society: Serial No. Name Function Year started Membership

Yes/No, If yes,

1.

2.

3.

29. Community centre/club:

Panchayat and local association: Yes/No, If yes

S.M.C. Whether at 1. slum/2. higher level Constitution membership Persons for not
starting.

1.
2.
3.

Any concrete programmes in the slum arranged on self help basis? Describe

30. Numbers of animals in the slum:-

Type	No.	Type	No.
1. Cows	4. Pigs	5.	
2. Buffaloes		6.	
3. Poultry			

Attitudes: (as a group)

31. Reorganisation choice by the group (in relationship to workplace)

(i) At present site (ii) Alternative site (give distance) (iii) Any site anywhere in plots/built up houses.

32. Willingness to pay for services/plots or built up houses.

33. Investigator's Remark:-

Signature of Investigator

Date:-

KANPUR SIUM AND SQUATTER SURVEY
Jhuggi Jhopri Cluster Observation Schedule

Physical Characteristics

1. Name of the cluster _____ Name of Investigator _____
2. Number of Jhuggis in the cluster _____ Population _____ Date _____
3. Area of the cluster _____ Length (i) _____ m (ii) _____ m (iii) _____ m
Breadth _____ m _____ m _____ m _____ m
4. Open land around the cluster
Area _____
5. Ownership of Jhuggi land
Description _____
Use _____
6. Type of land
Plain Hilllock River Bed Low lying Railway Stormwater drain Other (mention) _____

Committed/proposed use of the land in the I.D.P. of Kanpur Residential & Commercial & Industrial city open space/Park/community Roads/footpath/Offered recreation

Location

8. Major occupation of Residents (1) _____ (2) _____ (3) _____ (4) _____ (5) _____

Name of the major places of work(1) _____ (2) _____ (3) _____ (4) _____ (5) _____

Distance of the major places of work
(1) _____ (2) _____ (3) _____ (4) _____ (5) _____

Mode of transport used:Foot/Cycle/Rickshaw/Bus Foot/Cycle/Rickshaw/Bus Foot/Cycle/Rickshaw

9. Environmental disadvantages of the cluster due to location

Noise Smell Smoke Stagnant water Fire hazard Stone dust Any other (mention) _____

10. Distance of the cluster from nearest (km)

$\frac{1}{2}$	$\frac{1}{2}$	-1	1-2	2-5	5-10	More than 10
---------------	---------------	----	-----	-----	------	--------------

- A. City Centre
- B. Large market (Shopping centre)
- C. Neighbouring Shopping Centre
- D. Public Transport Centre
- E. Private Transport Centre
- F. Primary School
- G. Middle School
- H. High School
- I. Dispensary
- J. Hospital
- K. Police post
- L. Post office
- M. Bank

11. Reasons for choosing the site

(i) _____ (ii) _____ (iii) _____ (BIT)

12. Location of the cluster

Approach to the cluster _____

Distance from the metalled road(m) _____

Distance from the jeepable (road) (m) _____

Difficulties in reaching the cluster _____

13. Does the cluster have main street(s)? Yes/No

If yes, give numbers _____

(i) straight
(ii) zig-zag

Width of main streets

(i) _____
(ii) _____

14. Jhuggi pattern of the cluster Rectangular/Square/Irregular/Any other (describe)

Length(m) Breadth(m) Height(m) open space (sq.m)

15. Jhuggi Pattern

Jhuggi (i)

Jhuggi (ii)

Jhuggi (iii)

16. Cluster type Temporary/Semi-Permanent/Permanent, Expected duration(years)

Check the following

No. of jhuggis have not changed in the last five years/since they started

No. of jhuggies increased during the last five years/since they started

No. of jhuggies decreased during the last five years/since they started.

17. Whether formed by uprooting a cluster in some other areas? Yes/No
If yes, by self choice/work on previous site was over/private authority demolition/public authority demolition/

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18. Whether the structures have improved over years? Yes/No
If yes, check improvement.

From	Mudwall and thatch roof	Twigs and sticks	Brick and mud wall	Brick and mud wall
To	Pucca	Brick or mud wall & sticks & asbestos roof	Brick & mud wall	Twigs & sticks

19. Was the improvement done by the owner of the cluster/occupier of the cluster?

Was the rent increased by owner or cluster owner?

20. Living Environment

21. Water Sources:

Items	Wells	Hand pump	Public taps	House connections	If not available, where do the people get water (sources distance)
No. Working					
No.out of Order					
Total					

Drain: Availability of pucca/kutcha drains
Check up the drainage arrangement

Outflows	10-25%	25% - 50%	50% - 75%	75 - 100%	Small
households served					

Describe the water flow system in the clusters

Lighting

No of electric poles/lights _____ No. of house connection _____ Any other street
is kerosene light (lantern, dibbi or petromax) used for domestic lighting

21. Public Toiletries

	Male	Female	Total	State if alternative arrangements of residents & difficulties.
No of seats (water borne)				
No of seats (dry)				

22. Bath Rooms

	Male	Female	Total	Any alternative arrangement of residents & difficulties.
No. of water taps				
No. without drain				
Segment of water				

23. Availability of paved street _____
if yes, percentage of total street
0-25% 25%-50% 50%-75% 75%-100% paved

24. Sanitation: Slums: Street Cleaning arrangement _____
Garbage disposal system _____

25. Education: Whether available in the cluster _____
Croche Brilwari Nursery Primary school Middle school If any other, describe _____

Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Health: Availability within the cluster				
26(i) Malaria Eradication Scheme	DDT sprays	Vaccination	Primary Health centre	Visiting good doctor
Yes/No	Yes/No	Yes/No	Yes/No	Private Mobile doctor
(ii) Availability of nutrition programme:-Yes/No, if yes, no of beneficiaries _____				
27. Religious/Recreation Programme :	Givic numbers			
No	Mandirs/Mosque/Churches/Gurdwaras/any other			
Describe any organised religious/recreation programme in the cluster _____				

28. Ration shops: Within cluster ---Yes/No. If no, distance from the cluster (km)

Name and distance of shops where the cluster dwellers purchase non-convenience good

- (1)
- (2)
- (3)

29. Social Education. Whether available in the cluster?

Craft class	Library	Family planning and related benefits	Adult Education	Any other (mention)
Yes/No	Yes/No	Yes/No	Yes/No	

30. Cooperative society: Serial No. Name Function Year started Membership

Yes/No, if yes,

- 1.
- 2.
- 3.

31. Panchayat Community Centre/Club---Yes/No. If yes, give name and describe.

32. Local Association: Yes/No. If yes,

Serial No. Whether last cluster/ higher level cluster/ constitution Reasons for not starting

- 1.
- 2.
- 3.

Any concrete programme done in the cluster on self help basis?

Describe _____

33. Number of animals in the cluster

Type	No
1. Cows	3.
2. Buffaloes	4.
3. Poultry	5.

Attitudes:

34. Reorganisation choice by the group (in relationship to workplace)

(i) At the present site (ii) Alternative site nearby (iii) Any site anywhere in Kanpur
Plots/built up houses (give distance) Plots/built up houses

35. Willingness to pay for services/plots or built up houses.

36. Investigator's remarks _____

Signature of Investigator _____

Dated _____

Annex-3.02 KANPUR DEVELOPMENT AUTHORITY 'list of
Survey of slum and Squatter clusters.

DARSHAN PURVA

Name of Ahata	No. of Households	Population
Jawahar Jain	25	150
Umrai Lal	17	125
Sumer Ram	35	175
Trivedi	22	125
Sardar Prasad	28	275
Shanti Devi	3	12
Ram Singh	18	100
Rani Sahib	8	40
Chhote Lal	35	210
Prakash Devi	3	20
Kallu Mal Batad Ram	60	350
Gauri Shankar	50	250
Bal Govind	20	100
Manohar Prasad	18	150
Sant Bihari	11	66
Rameshwar Dayal	18	144
Satya Prakash Gupta	50	275
Shri Master Annat	35	180
Mahavir	20	125
Iallu Singh	12	80
Ishwar Deen	10	45
Raj Rani	7	45
Madhav Narain Tiwari	6	20
Harvilas	10	45
	3	18
Chheda Lal Radha Kishan	14	60
Shiv Narain Singh.	52	312
Lakshmi Narayan	6	30
Sukh Lal	3	20
Goara Devi	8	48
Deptি	60	335
Narayan Kori	8	48
Suraj Balli	20	120
Meku Mal Sonar	35	200
Dipti Sahib	50	250
Manik Mistri	16	85
Lal Singh	9	45
Avadh Bihari	20	120
Thakur Prasad	20	100
Panna Lal Bajpai	6	35
Ram Prakash Shukla	38	250
Brij Lal	6	40
Sardar Narinder Singh	5	30
Shanker Lal	6	30
Kalika Kori	8	40

Name of Ahara	No. of Households	Population
Gang Ram Mengal Ram	6	25
Bijaynath	10	60
Ram Kali Gupta	3	20
Mow Lal Kori	35	175
Mun Singh	125	650
Satya Narayan Misro	10	40
Durshan Singh	6	40
Badlu	4	20
Niranjan Wati Pathak	4	20
Kulei	5	30
Satya Narayan	1	15
Bhokha	12	60
Dulare Prasad Pandya	5	30
Parmeshwar Dayal Prem Nath	17	90
Ram Prasad	13	80
Raghunath Prasad	8	10
Shiv Pal Singh	7	40
Gokarn Nath Tiwari	10	60
Lal Man Nigam	19	100
Baju Mool Chand	11	70
Amir Chand	5	22
Gulzari Lal	13	70
Vidya Ram	6	30
Gulan Mai	11	60
Ayodhya Prasad	40	226
Lalson Kaghi (Raghunath)	45	225
Durga Devi	125	650
Sumita Prasad	30	160
Manni Singh	15	80
Ram Dulari	6	32
Muddin Gadarla	25	695
Ram Mishan Hojjm	5	22
Babu Ram	30	160
Raj Nali	6	32
Shankar Lal Gupta	20	110
Bani Prasad	25	132
Kalavati	13	68
Mannu Lal Kedar Nath	250	1250
Ganga Dayal Mishra	20	112
Raj Rani Mishra	12	50
Manna Lal Mishra	5	22
Shiv Mengal Dixit	11	52
Chander Pal	5	20
Shyam Pal Singh	14	65
Ram Kali	3	13
Bishambhar Nath Sachdev	20	100
Medan Gopal	33	150
Ram Prasad	3	20
Lala Nandeshwar Lal	95	500
Prem Bihar Sharma	130	600
Lekshman Dass	31	186
Th Raghunath Singh	8	45

Name of Ahata	No. of Households	Population
Thakur Ujaypal Singh	10	60
Md. Shakur	6	32
Kulkali	15	70
Paryag Datt	4	36
Jayanarayan Pandya	6	45
Capt. B.P. Dubey	8	50
Manna Baba	8	40
Sukhhi Babu	15	70
Girdhir Gopal	12	48
Anendeshwar Babu	100	520
Roop Vilas	60	320
Mahavir Jaiswal	25	125
Beni Madhav	45	225
Nageshwar	35	175
Lakshman Singh	4	25
Lakshman Singh	25	125
Harihar Gopal	20	112
Babu Lal Barai	50	325
Om Prakash	01	20
Prabhudeyal Shukla	8	40
Ram Krishan Mishra	3	15
Subedar Pathak	11	55
Jagdish Prasad Saxena	15	50
Babu Ram Tiwari	20	112
Dashrath Singh	25	112
Mahesh Kumar Tripathi	6	32
Raj Kishore Chaturvedi	10	22
Shiv Raj Singh	8	35
Mohan Lal	25	120
Jagannath Halwai	15	100
Inder Narayan Nigam	2	10
Kul Singh	25	125
Harinam Singh	20	111
Mohan Singh	3	18
Shiv Datt Tiwari	5	18
Din Dayal	26	140
Tulsi Prasad	30	160
Nanak Singh	2	10
Ha ram Singh	15	80
Shisham Singh	3	18
Barkat Ram	36	180
Ram Prasad Chaurasia	9	43
Kanhaiya Lal Kori	8	42
Purushottam Yas	5	24
Tribhawan Singh	40	215
Ram Lata Shukla	25	125
Mannu Lal Kedar Nath	200	1100
Jagat Narayan Pandiya	6	32
Ram Nath Gupta	2	9

Name of Ahara	No. of Households	Population
Panchvanshiya Devi	1	6
Subadar Singh	5	30
Yogeshwar Pandit	5	28
Amar Singh	8	45
Radha Devi	60	360
Sajjan Lal Dubey	15	85
Ramesh Singh Tonar	2	18
Ram Deen	18	100
Shankar Lal	30	130
Ram Narain	4	22
Gulberi Lal Saxena	2	12
Ram Narain	6	34
Guru Narain Nigan	25	150
Bansi Lal	4	26
Banwari	25	126
Maharana Devi	6	34
Tapeshwari	5	30
Anant Singh	3	16
Anant	8	48
Dalal Jawala Prasad	16	96
Ganga Devi	12	72
Jawala Prasad Tiwari	5	25
Gauri Shanker	6	30
Harish Chander Gupta	2	10
Hari Narain Sharma	4	20
Ram Sanchi Kori	40	225
Bishamber Singh	12	72
Kamta Babu	13	75
Gurudin	2	11
Ram Kumar Bajpai	2	8
Rawal Singh	6	10
Balwant Singh	5	30
Ramesh Tiwari	3	20
Master Shiv Raj Singh	2	10
Manna Singh	14	75
Babu Singh	8	45
Rajan Lal Madan Gopal	30	166
Durga Prasad	16	80
Tapeshwari Prasad	16	80
Kanwar Appar Singh	30	170
Ram Dulare Srivastav	1	20
Rajender Pd.Saxena	1	15
Kallu Malyata Ram	20	125
Chunni Lal Dogra	22	110
Pratap Naran Srivastav	10	50
R.L. Tripathi	2	11
Gullu	3	15
Mustafa Bai	5	25
Kishan Lal	4	20

Name of Ahsato	No. of Households	Population
Rajender Master	8	40
Suraj Prasad	20	100
Sita Ram	10	50
Bhagwan Das Shobha Nath	6	45
Manna Kathi	11	60
Ram Swarup	6	40
Dhani Ram Pandya	9	50
Shiv Lal Tripathi	25	140
Govind Prasad	15	75
Mata Dayal Misra	6	30
Girja Shankar	16	85
Kirpa Ram	11	60
Khushal Kori	4	20
Kadhey Shyam Gupta	3	20
Rajpal Singh	13	75
Chanda Bai	9	50
Lakshmi Narain	20	125
Sukhdev Pd. Nigam	30	175
Ram Kumar Nigam	10	55
Govind Pd. Bajpai	18	100
Basudev Verma	25	140
Mahavir Nigam	15	80
Ras Vihar Nigam	13	78
Dwarika Pd. Nigam	25	135
Jang Bahadur Srivastava	5	30
Shivnath Srivastava	5	30
Shivkali Tiwari	6	20
Sevaddin Tiwari	6	40
Dev Narain	3	15
Jyotinder Shankar Awasthi	9	60
Lakshmi Narain	14	90
Pyaie Lata	1	6
Susheela Devi Nayak	6	35
Shankar Dayal Tripathi	10	50
Dwarika Pd. Lakshmi Narain	21	115
Sarai Wala	30	160
Sundar Lal Prabhu Dayal	45	282
Maina Devi	6	32
Jangli Pd. Shankar Dayal	10	60
Gayen Babu	12	62
Jamuna Pd. Bajpai	25	145
Chandrasi	30	175
Ghari Wala	23	152
Badri Prasad	24	110
Shri Ram Babu Ram	7	12
Gauri Shankar Gupta	7	60
Surjit Kaul Balwant Kaul	4	30
Chandel	44	253
Gayatri	44	300
Bankey Lal Sharma	15	80

Name of Ahata	No. of Households	Population
Kanwar Bahadur	6	35
Badri Prasad	20	115
Gauri Shankar Misra	5	30
Ram Chander H-rdubey	10	55
Badri Pd.	99	1000
Davi Dayal Devi Sukh Tiwari	15	80
Jagdish Chander Kallu Mal	30	180
Sardar Nanak Chander	40	250
Laj Kumari	15	100
Ram Partap Singh	17	125
Misri Lal	10	60
Bhagat Singh	1	4
Ram Bholi	9	50
Krishan Murari Singh	10	55
Munni Lal Gupta	20	125
Gokarannath	30	210
Sukhram Gupta	5	25
Asha Ram	12	80
Yashoda Devi	37	250
Ramsharan Singh Jairam Singh	32	320
Hakumat Singh	10	75
Almu Ram	17	115
Jurawan Lal Bajpai	7	43
Shiv Shankar Lal State	15	650
Ajaipal Singh	25	150
Virender Singh	60	400
Mallu Lal Kedar Nath	156	1200
Guruddin Gadaria	45	425
Suraj Pd.	50	360
Chhungi Lal	350	3000
Ram Narain Vaishya	23	200
Lala Mahawaj Sudama Maharaj	65	450
Brahma Singh	42	450
Mangli Id. Gupta	25	200
Mulchand Gaya Pd.	16	200
Shiv Balak Singh	45	200
Ram Lal Dubey	75	375
Budhu Lal	20	100
Ram Awtar Shukla	10	75
Puttu Lal	10	55
Khazan Singh	7	22
Jai Shankar	14	75
Balwant Singh	11	60
Kirpa Shankar	25	125
Ram Kumar Dubey	28	150
Malla Singh	10	80
Nand Rani Devi Saxena	15	100
Khushi Ram	8	30
Hira Lal Driver	10	60
Raj Ram Ram Narain	16	80

Name of Ahata	No. of Households	Population
Jurawan Lal	6	36
Bhagwan Deen	13	78
Amar Nath Singh, Jai Singh		
Darshan Singh	23	138
Sundri Devi	17	110
Raj Kumar Chhanu Lal	24	115
Babu Lal Halwai	10	60
Ghuni Lal	36	216
Girdhar Bhawan	24	144
Rup Narain Srivastava	15	75
Shiv Guru Pd. Shukla	18	110
Hari Har Pd.	8	45
Bhagwan Devi	10	53
Babu Ram Shukla	17	90
Bhagwati Devi	10	50
Sham Lal Bhytik	26	150
Urmila Devi	4	28
Ram Pyare and Saraswati	14	75
Shiv Narain Misra	30	140
Ashok Kumar	4	22
S.P. Sharma	3	18
Lakshmi Narain	9	30
Surender Nath Awahhna	6	35
Bhagan Nath Mishra	6	25
Jeet Kumari Devi	25	130
Badri Bai Rameshwar Dhani Ram	10	40
Rameshwar Shukla	10	60
Budhu Singh	3	16
Sohan Singh	5	26
Kulu Mal Data Ram	25	150
Satya Narain Phul Chand Gupta	15	80
Badri Pd. Dube	6	40
Shiv Sewak Lal Dube	12	75
Ganga Pd.	25	125
Devi Dayal	15	80
Vidhya Wati	15	70
Pt. Lakshmi Narayan	20	115
Duli Chand Sonkar	13	70
Kunji Lal	8	45
Inder Pd.	6	40
Mahanth Jhuri Dass	10	50
Shri Ram	6	25
Muhana Devi	6	35
Mangli Pd.	11	60
Shiv Shankar	10	50
Raghu Pal. Kamla Devi		
Janki Devi	26	150
Jai Devi	5	30
Ram Swarup	15	80

Name of the Ahata	No. of Households	Population
Puttu Lal	10	55
Khazan Singh	7	22
Jai Shankar	14	75
Balwant Singh	11	60
Kripa Shankar	25	125
Ram Kumar Dube	28	150
Malla Singh	10	80
Nand Rani Devi Saxena	15	100
Khushi Ram	8	30
Hira Lal Driver	10	60
Raj Ram -Ram Narain	16	80
Jurawan Lal	6	36
Bhagwan Din	13	78
Amar Nath Singh, Jai Singh,		
Darshan Singh	23	138
Sundri Devi	17	110
Raj Kumar Chhamu Lal	24	115
Babu Lal Halwai	10	60
Chuni Lal	36	216
Giridhar Bhawah	24	144
Roop Narain Srivastava	15	75
Shiv Guru Prasad Shukla	18	110
Harihar Pd.	8	45
Bhagwan Devi	10	53
Babu Ram Shukla	17	90
Bhagwati Devi	10	50
Shyam Lal Bhyatik	26	150
Urmila Devi	4	28
Ram Pyare and Saraswati	14	75
Shivnarain Mishra	30	140
Ashok Kumar	4	22
S.P. Sharma	3	18
Lakshmi Narain	9	30
Surender Nath Asthana	6	35
Bhagan Nath Mishra	6	25
Jeet Kumari Devi	25	130
Badri bai Rameshwar, Dhani Ram	10	40
Rameshwar Shukla	10	60
Budhu Singh	3	16
Sohan Singh	5	26
Kulu Mal Data Ram	25	150
Satya Narain Phul Chand Gupta	15	80
Badri Pd. Dube	6	40
Shiv Sevak Lal Dube	12	75
Ganga Parsad	25	125
Devi Dayal	15	80
Vidya Wati	15	70
Pt. Lakshmi Narain	20	115

: 9th :

Name of the Ahata	No. of Households	Population
Duli Chand Sonkar	13	70
Kunji Lal	8	45
Inder Prasad	6	40
Mahanth Jhuri Dass	10	50
Shri Ram	6	25
Muhana Devi	6	35
Mangli Prasad	11	60
Shiv Shankar	10	50
Raghupal, Kamla Devi, Janki Devi	26	150
Jai Devi	5	30
Ram Swarup	15	80
Bansi Lal	4	26
Banwari	25	140
Maharana Devi	6	34
Tapeshwari	5	30
Anant Singh	3	16
Anant	8	48
Dalal Jawala Prasad	16	90
Ganga Devi	12	72
Jawala Prasad Tiwari	5	25
Soumi Shankar	6	30
Harish Chander Gupt	2	10
Hari Narain Sharma	4	20
Ram Sanehi Kori	40	225
Bi shamber Singh	12	72
Kamta Babu	13	75
Guriddin	2	11
Ram Kuma Bajpai	2	8
Rawail Singh	6	10
Balwant Singh	5	30
Ramesh Tiwari	3	20
Master Shiv Raj Singh	2	10
Manna Singh	14	75
Babu Singh	8	45
Rajan Lal Madan Gopal	30	166
Durga Prasad	16	80
Tapeshwari Prasad	16	80
Kunwar Apar Singh	30	170
Ram Dulare Srivastav	1	20
Rajender Pd. Saxena	1	15
Kallu Malyata Ram	20	125
Chuni Lal Droga	22	110
Fratap Narain Srivastava	10	50
R. L. Tripathi	2	11
Gullu	3	15
Mustafa Bai	5	25
Kishan Lal	4	20

Name of the Ahanta	No. of Households	Population
Rajender Master	8	40
Suraj Prasad	20	100
Sita Ram	10	50
Bhagwan Dass. Sobha Nath	6	45
Manna Kathi	11	60
Ram Swarup	6	40
Dhani Ram Pandya	9	50
Shiv Lal Tripathi	25	140
Govind Prasad	15	75
Mata Dayal Mishra	6	30
Girja Shankar	16	85
Kirpa Ram	11	60
Khushal Kori	4	20
Radhey Shyam Gupta	3	20
Rajpal Singh	13	75
Chanda Bai	9	50
Lakshmi Narain	20	125
Sukhdev Pd. Nigam	30	175
Ram Kumar Nigam	10	55
Govind Pd. Bajpai	18	100
Basudev Verma	25	140
Mahavir Nigam	15	80
Ras Vihar Nigam	13	78
Dwarika Pd. Nigam	25	135
Jang Bahadur Srivastava	5	20
Shivnath Srivastava	5	30
Shivkuli Tiwari	6	20
Sevaddin Tiwari	8	40
Dev Narain	3	15
Jyotinder Shankar Awasthi	9	60
Lakshmi Narain	14	90
Pyare Lata	1	6
Susheela Devi Nayak	6	35
Shankar Dayal Tripathi	10	50
Dwarika Pd. Lakshmi Narain	21	115
Saiji Wala	30	160
Sunder Lal Prabhu Dayal	45	282
Maina Devi	6	32
Jangli Pd. Shankar Dayal	10	60
Gayan Babu	25	145
Chandrasi	30	175
Ghari Wala	23	125
Badri Pd.	24	110
Shri Ram Babu Ram	7	12
Gauri Shankar Gupta	7	60
Surjit Kaul Balwant Kaul	4	30
Chandek	44	253
Gayatri	44	300
Bankey Lal Sharma	15	80

Name of the Ahata	No. of Households	Population
Kanwar Bahadur	6	35
Badri Pd.	20	115
Gauri Shankar Misra	5	30
Ram Chander Hardubey	10	55
Badri Pd.	99	1000
Devi Dayal Devi Sukh Tiwari	15	80
Jagdish Chander Kalu Mal	30	180
Sardar Nanak Chander	40	250
Iaj Kumari	15	100
Ram Pratap Singh	17	125
Misri Lal	10	60
Bhagat Singh	1	4
Ram Bholi	9	50
Krishan Murari Singh	10	55
Munni Lal Gupta	20	125
Gokarannath	30	210
Sukhram Gupta	5	25
Asha Ram	12	80
Yashoda Devi	37	250
Ramsaran Singh Jairam Singh	32	320
Hakumat Singh	10	75
Almu Ram	17	115
Junwan Lal Bajpai	7	43
Shiv Shankar Lal Estate	45	650
Ajai Pal Singh	25	150
Virender Singh	60	400
Mallu Lal Kidamath	156	1200
Guruddin Gadarla	47	425
Suraj Pd.	50	360
Changi Lal	350	3000
Ram Narain Vai shya	23	200
La La Maharaj Sudama Maharaj	65	450
Brahma Singh	42	250
Mangli Pd. Gupta	25	200
Mool Chand Goya Pd.	16	200
Shiv Balok Singh	45	200
Ram Lal Dubey	75	375
Budhu Lal	20	100
Ram Avtar Shukla	10	75

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KANPUR DEVELOPMENT AUTHORITY
JHII JAREEV CHOWKI

Name of the Ahata	No. of Households	Population
Duli Muli	108	640
Chuni Lal Gourgh	24	175
Bodri Pd.	111	700
Sh.Mohammed	100	650
Gulam Ali Suraj Pd.	95	650
Maulvi Ismail	50	310
Raja Ram Kallen	49	450
Murela Devi	50	350
Chhabba Lal	40	250
Jagan Nath	8	50
Sharda Pd.	6	40
Kashi Lal	20	80
Sawal Dass	20	120

BANS MANDI

Hakim ji	18	127
Afak Resul	11	100
Sohan Lal	25	175
Sohan Lal	29	200
Savir Hussein	13	85
Varde Hanan	12	80
Mangal Khan	10	65
Bhatan Wala	55	350
Dwarika Dass	33	210
Hazi Shaukat	30	130
Bhattan Baghia	62	422
Azizzuddin Bashiruddin	200	2000

BAKAR MANDI KANAL GANJ

Shyam Kishore Awasthi	10	60
Pervati Devi	12	55
Bisarjan	18	100
Dipti Sahib	56	500
Barlu Ganj	4	25
Bashiruddin	51	300
Amar Nath Vishavnath	11	50
Bashiruddin	62	200
"	43	200
Ganga Narain Ganesh Narain	25	150
Bashir Sahib	4	25
Smt. Sothingalparsad	9	80
Hira Lal	21	110

NABAB GANJ

Durgawati Bangla Urf		
Bai jec	40	225
Mahadev	15	100
Shiv Kumar Srivastava	12	70
Munnu Mallah	10	55

Name of the Ahota	No. of Households	Population
Brijpal Saxena	7	40
Devi Ghulam & Puttu	4	18
Ganpat Rai	7	42
Parvati Devi	7	35
Ganga Ram	45	210
Premi Lal Varma	8	43
<u>KULLI BAZAR AND DHAN KUTTI</u>		
Gudar Wala	45	250
Fazal Kari	25	115
Lellan Man	113	720
Masjid Wala	70	300
Ram Nath Vakil	299	2092
Bombay Wala	200	980
<u>COLLECTOR GANJ</u>		
Chhakkan	50	200
Tar Wala	150	2000
Chutian	12	62
Ram Kumar	7	50
Raja Babu Aggarwal	4	10
Basant Lal	14	70
Keshav Ram Toto Ram	60	300
<u>ANWAR GANJ</u>		
Bulli Pehlwan	40	350
Sundri Devi	15	100
Ram Chunni	13	100
Rehwa	22	150
Hannu Chowdhuri	50	250
<u>FAZAL GANJ</u>		
Bachhey Lal	7	50
Fazal Hussein	275	1800
Fazal Mohammed	150	1300
Tehsildar	84	400
Prem Narain Sukhla	80	500
<u>ARYA NAGAR</u>		
Bisati	21	116
Bashiruddin	45	2400
Malti D vi Gupta	14	80
Shanti Devi	25	130
Rajinder Singh	63	300
<u>CHUNNI GANJ</u>		
M.d. Yussuf	25	150
Azam Ali	50	300
Salar Baksh	28	300
Chunni Ganj	80	500
Bishbirer Nath	84	1000
Chunni Ganj	100	600

RAIPURVA WARD NO.16

Name of Ahata	No. of Households	Population
Chhaba Lal	36	180
Babu Lal	18	90
Ram Prasad	11	55
" "	47	235
Smt. Gomti Devi	8	40
Marwan Lal Varma	20	100
Ram Nath	44	220
Ram Krishan, Baldev Pd	45	225
Navli Sharma	200	1000
Nagar Mahapalika	200	1000
Hari Nath	20	100
Ram Nath	44	200
Raghunandan Singh	24	120
Mahavir	34	160
Gangaram Gupta	60	350
Th. Devi Din	200	1000
Manna Mukta, Chhaba Lal	200	1000
Bhagwat saran Mukut Sharan	100	600
Kanhaiya	9	80
Shiv Ratan Lal	8	90
Mustafa	10	50
Trust Sakhash Kar Babu	10	50
Ram Narose	7	35
Chhiddan urf Azad Ali	11	55
Farbaruddin	300	1600
Ram Dulari Gupta	16	65
"	10	50
Trust Mandir	20	100
Laxmi Narain	13	65
Babu Ram Gyan Prasad	9	45
Guru Prasad Nigam	13	65
Shri Ram Chander	12	60
Raja Ram Srivastava	13	65
Smt. Purvati Devi	10	50
Mahapalika Shakkar Mill		
Khulva	350	2100
Smt. Parvati Devi	300	1600
Ram Nath Shuaq Kanta Trust	350	1650
Mamma Mukta K. Charan	75	525
Lalit Kumar	5	40
Trust Mandir	15	100
Nihal Chand Baldev Sahai	250	360
Dhannu Lal Gaur	8	40
Suparas Nath Jain	25	125
Inder Prasad Gupta	10	60
Smt. Shanti Devi Kanodia	10	60
Babu Lal Bhujwa	14	75
Satya Prakash Kanodia	438	2500
Smt. Guru Pyari Devi	21	100
Mangli Pd. Vakil	175	900
Iete (Dhanni Lal	30	175

Name of the Ahata	No. of Households	Population
Nanak Chand	35	200
Ram Swarup	15	100
Radhey Shayam	15	225
Sarveshwar Gupta	6	20
Munna Lal	9	45
Bhagwati Prasad	55	280
Tirath Dass	66	350
Kundan Lal	12	65
Ramey Haria	600	2500
Radhey Shayam Shiv Pd.	17	100
Ram Shankar Ramesh chand er	9	45
Ram Nath Pandey	9	45
Kallu	10	20
Raghuvan	16	80
Smt. Medi Bhaktin	4	20
Durga Prasad	2	10
Bishnu	3	15
Kanhaiya Lal	10	60
Choreddin	13	50
Babu Lal Gupta	10	45
Smt. Ratti Devi	26	150
Babu Lal	36	200
Sukhan Lal Aggarwal	95	330
Shiv Goptal Tiwari		
Nagsu Mian	25	125
Lakshmi Narain Govardhan		
Dass	7	35
Devinder Nath Kachihar	6	50
Sangam Lal Banarsi Lal	5	50
Pan a Lal Vaishya	5	50
B.K. Industries	5	50
Manmodak Prasad	5	25
Purshottam	9	45
Kopar Ganj Khalwa	9	45
Badri Prasad	4	20
Onkar Nath Gupta	4	20
Kaushal Kishore		
Virender Kishore	30	150
Sehdevi	5	80
Mannu Lal Mata Din	5	80
Ram Prasad Manohar Lal	43	200
Smt. Suraj Devi	12	60
Banwari Lal	5	25
Ram Lal Keshav Lal		30
Ram Lakhram Ram, Babu Lal		
Ganga Prasad, Baijnath Kamla		
Path	19	190
Maiku Lal Ram Narayan	75	385
Sumer Ram	3	50
Ram Sanchi Dixit	16	85
Harihar Nath	4	50
Iala Chhanga Mal	9	50
Kailash Nath Ayasbal	3	25

Name of the Ahata	No. of Households	Population
Rajinder Prasad	2	30
Basant Lal Kedar Nath	26	150
Panna Lal Pyare Lal Manna Lal	9	50
Hira Lal	4	20
Mannu Lal Pandya	6	30
Trust Ram Janki Mandir	9	50
Badhu Ram	45	300
Smt. Subhadra Devi	9	50
Smt. Ram Kali	10	50

CHAMAN GANJ

Kuver Kalwar	13	55
Suraj Prasad	15	72
Chaga Lal Parvati	20	10
Manohar Khatik	25	120
Lakshmi Narain	5	35
Gopal Kedar	4	22
Krishan Ram	6	35
Hori Lal	2	11
Chote Lal	6	33
Chhatar Pal	50	250
Baldev Rakyal	40	320
Kaloot Master	32	220
Ayodhya Prasad	12	63
Ram Rattan	14	70
Ram Bhagwan Din Kalwar	47	225
Malti Devi	25	135
Jai Ram Shukla	20	115
Ram Awtar	13	90
Khalwal Master	4	50
Chhedi Lal	13	72
Sudama	3	17
Chhedi Lal	30	160
Md. Squique	30	165
Babu Lal Shehzade	15	80
Habibul Ansari	13	72
Sarswati Ashram	13	75
Parvati Devi	7	37
Jhabbu Lal	4	22
Moti Ram Sindhi	6	33
Smt. Prakash Vati Kedia	10	64
Rafique	30	170
Mohavir Raidas	72	428
Deep Naran Bajpai	10	68
Ram Rani	15	100
Kotiana Wala	23	145
Gulab	15	180
Khushal Ram	15	175
Ghulam Baksh	34	75
Khurdid Ali	14	78
Nazim Ali	12	119
Bhagwan Dass	17	80
Ram Rattan	15	55
Halil Mian	8	

Name of the Ahata	No. of Households	Population
Rajjak Mian	18	120
Agajean Buildings	28	165
Arya Begum	35	200
Bihari	6	38
Banwari Seth	6	32
Gian Wati Sahu	6	31
Chhedi Lal	4	17
Ramanand	20	120
Bishamber Dayal Gupta	6	40
Bhogi Lal	3	40
Shankar Lal	22	130
Amar Nath Nigam	20	120
Kishori Lal Nigam	16	85
Shri Krishna	3	13
Dulhi Chand	2	11
Kishori Putti Lal	9	50
Babajee	8	42
Kalawati	6	36
Prabhu Dayal	6	32
Durga Ram	4	22
Laxmi Devi	90	510
Rathu Sohan Lal	10	60
Ram Gopal	30	175
Mohan Lal Badri Prasad	10	60
Rasid Manjil Wala	12	70
Najeer Manihar	20	120
Mohammed Ismail	4	25
Nadir Guard	15	100
Haji Shama	74	440
Asif Hussein	40	225
Haji Jee	20	110
Abdul Razzak	20	230
Kallu	16	100
Kullan Ghosi	12	100
Kishore	5	30
Prabhu Dayal	6	40
Ram Swarup	15	90
Ganga Prasad	22	150
Ram Swarup	16	100
Hamid	3	17
Shadulla Master	15	95
Manzoor Ali	20	110
Sayyad Ahmed	16	95
Sultan Mandir Wala	6	36
Md. Idrish	5	32
Hussein Alam	50	300
Khalil Ahmead	16	95
Mohd. Shan	40	250
Karmuddin	6	20
Ashib Ali	5	22
Abdul Rehman	10	100
Hamraj Manzil	16	100
Jagra Khatun	8	50
Musmad Najiram	35	225
Mahroom Hussein	10	60

Name of the Akhro	No. of Households	Population
Md. Ishaque	15	90
Master Abdul Rehman	10	75
Sayad Zekir Ali	25	150
Hazir Hussein	11	75
Jaij Hussein	56	330
Abid Hussein	25	150
Anwar Hanzil	32	200
Md. Karim	25	150
Md. Shafi Md. Aslat	26	156
Muazi Sayad Nisar Ali	25	150
Musabblli Sarju Haque	40	240
Gokul Chand	100	1000
Beri	25	150
Bali Mohammed	10	100
Gulam Rasul	16	100
Abdul Sattar	10	75
Chamaria	19	200
Iunia Phatak	105	636
Nawabali Sadiqui	8	64
Hazimali Beg	40	280
Mashli Baba	17	90
Madhav Lal	10	60
Kallu Mal	28	170
Lala Kasai	30	150
Kanhaiya Lal	100	600
Bel Wala	5	15
Budhi Master	23	200
Kallu Mal	80	400
Ram Dass	35	175
Krishan Bihari	18	100
Rehmat Ulla	5	35
Chhote Lal	12	60
Balbhader Prasad	6	42
Manku Lal	27	162
Raj Narein Bajpai	18	90
Raj Kishore Bajpai	17	85
Kallu Mal	40	280
Abdul Razzak	275	1650
Hind State Pvt. Ltd.	111	666
Dada Mian	21	105
Peer Buksh	60	360
Nagar Maha Palika	65	455
Civil Lines	90	570

Annex-3.03: Summary Table of KDA Survey of Clusters of Ahatas

<u>Sl. No.</u>	<u>Locality</u>	<u>No. of Ahatas</u>	<u>Families</u>	<u>Population</u>
1.	Danshanpurwa	287	4,630	29,046
2.	Kaushalpuri	58	790	4,322
3.	Juhu Jareev Chowhi	13	681	4,475
4.	Bans Mandi	12	498	4,084
5.	Bakar Mandi Karnalganj	13	316	1,855
6.	Nababganj	10	155	838
7.	Kuli Bazar Dhankutti	6	752	4,457
8.	Collectorganj	7	297	2,692
9.	Anwarganj	5	140	950
10.	Fazalganj	5	596	4,350
11.	Aryanagar	5	168	3,026
12.	Chini Ganj	6	367	2,850
13.	Raipurwa	106	5,301	26,990
14.	Chawanganj	141	3,319	20,353
15.	Civil Lines	1	90	570
<u>Total</u>		<u>575</u>	<u>19,019</u>	<u>1,10,858</u>

Chapter-IV: Tempo of Migration into Kanpur city
and its Aftermath

(Earlier) 4.01 Amongst the first eight towns of India (all having Migration Studies a population of 1 million and above), the rate of growth of for large Towns population has been high enough as compared to the rate of growth of country's population during the last three decennia.

The main factor registering the high rate of growth in these towns are primarily two (1) natural growth (2) net immigrations in the towns. Migrations assume four different streams: (a) rural to rural; (b) rural to urban; (c) urban to rural; and (d) urban to urban; here our interest is limited to (b) and (d) which indicate migrations into urban areas ~~intra~~ minus (c) urban to rural. The migration can be ~~intra~~-district, intra-state or inter-state. In 1961-Census, in regard to migrants to 'million-plus towns', classification was according to (i) sex; (ii) duration of residence; (iii) age-group; (iv) class of worker - either employer, employee, single worker, family worker; (v) place of birth; (vi) educational level; (vii) marital status; this exercise was for the first

4.02 National Sample Survey data also provide information about migration in Report-53, according to causes of migration divided broadly into voluntary reasons or segmental reasons - and according to duration of residence in the town area for classified time periods ranging from 3 months - to 10 years - and largely regarding those, whose residence is upto 1 year as temporary and rest permanent migrants. The NSS tabulation is based on three-fold stratification into (1) big cities - Bombay, Calcutta, Delhi and Madras; (2) towns below 300,000 with population 300,000 and above; and (3) towns with population

4.03 Similarly, the surveys conducted under sponsorship of Research Programme Committee of the Planning Commission - for 21 cities give a fund of data on migration. The Socio-Economic Survey was done for Kanpur (by Prof. D.N. Majundar - of which reference has been made earlier) in mid-1950's and there are quite many cross-tabulation ^{data} about migration in Kanpur.

1) See Anex-4.01, in regard to Sampling Methods and Sample Sizes etc. in respect of 10-cities - Surveys under the auspices of R.P.C. (Planning Commission) of Baroda, Bombay, Gorakhpur, Hubli, Hyderabad- Secunderabad, Jamshedpur, Kanpur, Lucknow, Poona, Surat.

The data of various city surveys (of RPC), offer data on internal migration which can be of service for policies relating to (a) requirements of town-planning, (b) extension of city-limits; (c) acquisition and development of new land for various purpose including that for residential needs.

4.04 Absence of or lack of visions for different horizons, to cover over-all problems of urban areas, augments a growth of slum colonies in early stages of momentum in-migration to the cities; and at later stages, it operates as a breeding-ground both for growth of slums as also of the squatter colonies - causing over-crowding, acute housing shortages, paucity of infrastructure of essential and community services, and further operates into unending vicious* attendant ills of crime and juvenile delinquency. There is therefore, urgency to study in depth the population migration data (along with data of natural growth of population with rigour, in particular, in regard to 'plus million' cities - in which study of Kanpur city is also important. The planned social and economic development strategy also demands immediacy for industrialisation and urbanisation - and these operate as accelerating factors in the tempo of rural-urban migration. Further various studies including one by N.V Sovani establish that rural migrants to urban areas is not the agricultural labour/ers but it is the landless labours - and they are the ones who are largely 'pushed out' to urban area. Again, in urban areas the unemployment was more for 'original residents of the cities' than amongst the migrants - probably because the latter ones migrate back to villages if they do not secure jobs within certain periods stay in the town and therefore the movement to urban areas is 'or back-push' cautious, discerning and reversible - as the retreat/is an integral part. According to NSS Report 53, the unemployment rate was 8.2 percent for urban resident (non-migrant) population and 6.4 percent for among the migrant population; in case of metropolitan towns, the corresponding percentages for Delhi and Bombay were respectively 4.2 percent and 7.1 percent for non-

*circle.

migrants) and 2.7 and 4.5 respectively for migrants.

4.05 Further, according to National Council of Applied Economic Research (NCAER) study on 'Urban Income and Saving (1962), the disposable average income of the non-migrant urban household, in 1960, was Rs.1631; for migrants from villages, Rs.1718; for migrants from other smaller towns, Rs.2,283; for migrants from other cities, Rs.2519; for migrants from foreign countries, Rs.2682. This demonstrates that a non-migrant in a city becomes stale in his marginal efficiency than a migrant; but one who migrates from town excels the village migrants and a city migrant, a town migrant. The higher levels of income for the migrants (depending upon his migration from village, town or city) establishes the elements of pull factors and establish that rural-^{migration is a process rather than} urban/or a continuum. The study on the process demands a multi-disciplinary approach in which administrator, demographer, economist, geographer, historian, sociologist, and town and regional planner should jointly apply their faculties.

4.06 In the context of the above issues and analyses emerging, it was thought to incorporate some questions (Nos. 17-24.4) on migration data of Kanpur (in the Household Interview Schedule) - in regard to time of migration of slum dwellers and squatters, whether they migrated alone or in company of family, friends relatives etc. The tabulated data have been analysed in what follows.

(ii) Aitractions of Kanpur to the Migrants. 4.07 To thousands of people, inland around the rural areas of Kanpur, only lingering hope is to somehow survive in Kanpur city. Consequently, urban settlements grew in Kanpur in an unplanned way - beyond the control of the authorities in respect of regulating land uses and construction of buildings. Houses built in an illegal and unauthorised way, appear^(ed) almost every day, in all parts of the town. Even slum shanties also have had the swelling of uncontrolled urban dwellings.

4.08 In terms of functions and social composition, these urbanised settlements have become centres of cultural and political elites. A large proportion of voters in the State and local elections are from the middle and low income weaker sections of the society. Slum and squatter inhabitants are largely employed as operators of buses, trucks, rikshaws etc. but in addition they are also king makers because of their voting power. Thus, they are recognised as a force to be reckoned in the cultural and political life of Kanpur; and they also aspire not only for survival but also ^{for} / progress in the urban life of Kanpur.

4.09 The provisional and temporary shacks constructed demonstrate traditional and local touch - but they lack institutional character. Niggardly supply of raw as well as developed land fails to create the base - and ^{plot size} / has shrunk over time, following building regulations and bye-laws which suffered from pragmatism; this engendered speculation. Frustrating barriers that grew, impelled the new settlers to raise either a one-room buildings with flimsy materials or one-room/hovels/squat on unauthorised land - crowding with all or more family members or relations. In addition, the supply of cheap one-room 'kutcha' or semi-pucca houses not only decelerated but also came to a halt.

4.10 Another factor the slum clearance/improvement of slums and squatter colonies got initiated as a part of the plan schemes, in 1960, when the State government started spending money on this account. This caused impetus to a section of slum dwellers to move out of the slums and construct a jhonpri by ^{taking steps to} / register as a homeless or pavement dweller ^{so as} / to become eligible for allotment of a house-plot. The temptation to own a house-site at highly concessional rate, in a metropolis, was too hard to resist.

4.11 Professor Majundar's survey of Kanpur city in mid-1950's, noted that 90 percent of the household heads

in Kanpur were immigrants - about 31 percent having migrated before 1940 and rest after 1941. Under different dimensions, / all immigrants including family members ,45 percent belonged to pre-1940 period, 19 percent, to 1941-45; 22 percent, 1946-50; and 14 percent, to 1951-55. Those who had come early to look for employment grew old in the city and had assumed the roles of heads of the households; however, the tide of immigration which ^{had} accelerated in the 1940's, dampened sizably after 1950.

(iii) Results 4.12 The slum survey done, in 1976, as a part of present of Mig- study indicates that the composition of the migrants - in the Chara- Kanpur city's slum and squatter settlements - over time cteris- declined and more so in case of slum-dwellers - though it tics of 1976 was relatively higher in case of squatter dwellers, particularly Survey declined during the 15-year period of 1961-76. Out of 1000 sample households, it turned out that 45.3 percent of the household- (heads) were in Kanpur since birth; 17.2 percent migrated before 1947; 17 percent between 1948-60; 15.5 percent, between 1961-70; and only 5 percent came after 1970 upto 1975/76. The relevant corresponding aforesaid five time - spans in case of slum households - the proportions were 45.3 percent, 18.2 percent, 18.3 percent, 13.9 percent, and 3.8 percent respectively; and for squatter households - 43.5 percent, 13 percent, 12.5 percent, 22 percent and 10 percent respectively. The acceleration in the proportions for the squatter households was a larger one during 1961-70 and in 1970's perhaps motivated by decline in entry in central area 'ahatas' due to non-availability of land- and saturation point in overcrowding and 'killing' pressure on horribly poor essential and community services on the one hand (of which a picture is offered in Chapter-VI) - and on the other the 'laissez faire' in the uncontrolled growth of unauthorised dwellings on open public and private land on the outskirts of the city and in the fringe areas (Table- 4.01)

1) 1961 and 1971 Censuses noted this phenomenon India-wise; according to the 1961-Census the rate of urban growth was 26.4% from 41.4% in 1941-51 and in 1961-71 also the rate could rise to only 37.8% in spite of huge investment inputs in urban areas and industrial developments. However, the story was different in regard to growth rates in ~~big cities~~, ports and capital cities where the growth rates ranged from 42-397% during 1961-71. Comparatively the Kanpur growth rate was 31% only-lowest in the first 8 big cities-except for Calcutta Municipal area, where the rate was 7% only in 1961-71.

Table 4.01: Periodic Migrant Waves in percentages in
Slum and Squatter Settlements in Kanpur
City (in 1976)

<u>Period</u>	<u>Slum</u>	<u>Squatter</u>	<u>Total</u>
	<u>Percentages</u>	<u>Percentages</u>	<u>Percentages</u>
Since birth	45.70	43.50	45.30
Pre-1947	18.20	13.00	17.20
1948-60	18.30	12.50	17.00
1961-70	13.90	22.00	15.50
After 1970	3.8	10.00	5.00
Total	100.00 (800)	100.00 (200)	100.00 (1000)

Note: The figures within brackets show the size of the sample.

4.13 Nearly one-third of the heads of slum and squatter households, in Kanpur, initially migrated either alone or with wife - but the latter type were surprisingly /just one-tenth of this composition; and about 45-46 percent lived in Kanpur since birth; consequently migrants formed only 55 percent of the total households heads. Next proportion to migrate-after 'alone or with wife'-is that of those 'who migrated with whole family' and it was 20 percent. Rest of the migrants 'either with children or relatives or friends' in total, constituted about 6 percent only. However, in case of squatter households, the percentage for 'migration with friends' was as high as 20.5 percent as compared overall proportion of 4.4 and slum households being only 0.4 percent; this wide departure demands explanation. Since the squatters came to the metropolis without any place to stay or only/a few days' stay, they come in 'a group of friends' to swim and sink together /this in itself raised their morale; and in case of difficulties confronted they/could confide in themselves causing no embarrassment to the wife, children and kith and kin or the family members themselves. This situation

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has not been largely faced by the slum households - because they arrive and continued to live with-in established culture - which is not possible in squatter settlements which belong to floating and an ad-hoc culture in an urban set-up (See Table-5.02).

Table-4.02: Composition of the Migrants with the Household Head in Kanpur City (as in 1976).

Type of composition	No. of slum dwellers	No. of squatter dwellers	Total
1. Alone	220 (27.5)	58 (29.0)	278 (27.8)
2. With wife	33 (4.1)	7 (3.5)	40 (4.0)
3. With children	2 (0.3)	-	2 (0.2)
4. With whole family	165 (20.6)	41 (20.5)	206 (20.6)
5. With relation	11 (1.4)	3 (1.5)	14 (1.4)
6. With friends	3 (0.4)	41 (20.5)	44 (4.4)
7. Living since birth	366 (45.7)	89 (44.5)	455 (45.5)
8. Total	800 (100.00)	200 (100.00)	1000

4.14 The question whether the migrants settled permanently in the slums or squatters' colonies where they first migrated they afterwards to or migrated from a slum/squatters' colonies elsewhere is to determine studied / the nature of migration in Kanpur. It is found that about three-fourths of migrants got settled in slums/squatter settlements, where they arrived first. Of the remaining one-quarter moved out of their first reception/centre, since they belonged to families of 6-8 persons in case of slum dwellers and family size category of 4 persons in case of squatters to make their stay little comfortable. (see Table-4.03)

Table 4.03: Movement of Slum and Squatter Household after first settlement.

Households	Moved	Not moved	Total
Slum dwellers	205 (26.0)	595 (74.0)	800 (100)
Squatters	50 (25.0)	150 (75.0)	200 (100)
Total	255 (25.5)	745 (74.5)	1000 (100)

Note: Figures within brackets show percentage distribution horizontally.

4.15 Character and size of internal migration to urban areas from one state to other state in India is indeed very small; it was 3.8 percent for the decade 1881-1891; 3.3 percent, in 1891-1901; 3.6 percent, in 1901-1911; 3.7 percent, in 1911-1921; 3.6 percent in 1921-31; 3 percent, in 1931-51; and 3.3 percent during 1951-61. But when consideration is given to movement from 'birth place' to 'place of enumeration', the percentage of migrants to total population, in 1961, comes to 30.7 percent as compared to 3.3 percent for migration from one state area to another state-area; again, it is the short-distance migrants (or intra-district) who constitute 67.8; medium distance (or inter-district or intra-state) migration, 21.4 percent; and long-distance (inter-state) migration 10.8 percent. The migration of females - due to marriage (in 1961) has been about 4.2% in Kanpur - though it is higher in other million-plus cities - 16.8 percent for Hyderabad; 13.4 percent for Bangalore; 10.9% for Bombay; 9.7 percent, for Calcutta; 8.5 percent, for Madras; 7 percent, for Ahmedabad and 5.7 percent for Delhi.

4.16 The over-all rate of migration 'rural to urban' in 1960-61, in India, was 6.8 per 1000; and 'urban to urban' 18.2 per 1000; the total of the two streams is 24.8. Therefore, on an average if the urban growth-rate, in India was 3.78 percent it can be averred that after deducting for 1 percent urban-rural back-push from average annual rate of 2.48 percent the natural growth rate in urban areas will be about 1.3 per annum. But this is not necessarily applicable to the individual urban areas. The degree of congregation has been primarily in Class-I towns where the proportion of total urban population rose from 22.93 percent in 1901 to 41.77 percent in 1941 and to 52.41 percent in 1971 - though the proportion in Class-II & III towns remained static at around 11-12 percent and 16.5 - 18.7 percent respectively in 70 years (1901-1971) and declines ensued in case of Class-IV, V and VI from 22 percent

to 12 percent, 20.38 percent to 5.24 percent, and 6.29 to 0.8 percent. The number of Class-I towns also increased from 113 in 1961 to 142 in 1971. In Uttar Pradesh, the number of Class-I towns increased from 17 to 22 during 1961-71 and the percentage of urban population of these towns to the total urban population of the state also grew from 54.4 percent to 57.1 percent; nonetheless, the urban population of the state formed only 14 percent of the total state population. However, Kanpur's population itself formed 10 percent of the total urban population of the state - with a decade growth rate of 31.1 percent in Kanpur as against 30 percent of the state primarily due to growth of 47 new towns in Uttar Pradesh.

4.17 A historical resume of urban and migration phenomenon, as given in the above two paragraphs, for India, Uttar Pradesh and Kanpur needs a further background to grasp further results of the '1976-survey' of the present study - in regard to intra-movement of the slum and squatter households as also the type of help they received in Kanpur.

migrants

4.18 Factors which motivated the 547/ 434 slum-dwellers and 113 squatting migrants to leave their villages/native place could have been quite many; but in the present analysis they have been grouped under 8-9 well-knit reasons as shown in Table-4.04; some have given two or three factors which made them move to the urban area of a big city. For example, 238 (180 slum dwellers and 58 squatters) gave credit ^{to} the fact that they 'had no land'; 53 (43 slum-dwellers and 10 squatters) assigned the reason to 'family quarrels and intrigues'; 35 (26 slum dwellers and 9 squatters) found that they were 'tis-fit' in the village society'; 25 (24 slum dwellers and 1 squatter) felt that they 'were being oppressed' by zamindars and relations; 22 (13 slum-dwellers and 9 squatters), due to 'attraction of city life'; 389 (319 slum dwellers and 70 squatters),

due to 'friends and relatives who would get a job for them in Kanpur'; 20 (14 slum-dwellers and 6 squatters), due to 'ruination of hereditary profession/cottage industry'; 78 (66 slum-dwellers and 12 squatters) due to 'spirit of adventure in for new life'; and 7 due to other factors. It will be observed from the data in Table 4.04 that nearly seven-tenths of the migrants were motivated by two factors (that is (i) 'had no land'; and (ii) 'hope in friends and relations/o get jobs for the migrants) - of which the first factor was of value to the extent of 27.4 percent and the other for 4.5 percent.

Table 4.04: Reasons for leaving the Village/Native Place

Reasons	Number		
	Slum dwellers	Squatters	Total
1. Had no land to cultivate	180 (25.9)	58 (33.1)	238 (27.4)
2. Of family quarrels and intrigues.	43 (6.4)	10 (5.7)	53 (6.3)
3. You found yourself misfit in the village society.	26 (3.9)	9 (5.2)	35 (4.1)
4. You were oppressed by Zamindars/ relations.	24 (3.5)	1 (0.6)	25 (2.9)
5. You were attracted by city life.	13 (1.9)	9 (5.2)	22 (2.5)
6. You had friends and relatives to get you a job in Kanpur.	319 (45.9)	70 (39.9)	389 (44.7)
7. Your cottage industry hereditary profession was ruined.	14 (2.0)	6 (3.5)	20 (2.3)
8. In spirit of adventure for a new life.	66 (1.5)	12 (6.8)	78 (9.0)
9. Others	7 (1.0)	-	7 (0.8)
Total	692 (100.00)	175 (100.00)	867 (100.00)
Percentage	79.6	20.4	100.0

Note: Figures within brackets give percentage distribution vertically.

4.19 Out of 1000 sample households, 58 (or 5.8 percent) moved to servant quarters; 0.7 percent, to factory quarters; 13.7 percent, to relatives' house; 5.3 percent, to other places; and 74.5 percent were non-movers at the time of the survey. Specifically in case of 800 slum households, 34 (or 4.3 percent), moved to servant quarters; 0.6 percent, to factory quarters; 14.1 percent, to relatives' house; 6.6 percent, to other places; and 74.4 were non-movers. In case of 200 squatter households the 24 (or 12 percent), moved to servant quarters; 1 percent, to factory quarters and 12 percent, to relatives houses; and remaining 75 percent, were non-movers. It is interesting to observe that the percentage of those who moved to servant or factory quarters was three-times for slum-dwellers on the total as compared twice for squatters.

Table-4.05: Intra-Movement of the Immigrants in Kanpur city of Slum and Squatter settlers to servant quarter or Factory Quarter or Relative's place (as in 1976).

Movement from Movement to	Servant Quarter	Factory quarter	Relative's House	Other places	Non-Movers	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Slum-dwelling	34 (4.3)	5 (0.6)	113 (14.1)	53 (6.6)	595 (74.4)	800 (100.00)
Squatter "	24 (12.0)	2 (1.0)	24 (12.0)	-	150 (75.0)	200 (100.00)
<u>Total</u>	<u>58</u> <u>(5.8)</u>	<u>7</u> <u>(0.7)</u>	<u>137</u> <u>(13.7)</u>	<u>53</u> <u>(5.3)</u>	<u>745</u> <u>(74.5)</u>	<u>1000</u> <u>(100.00)</u>

Note: Figures within brackets indicate percentage distribution horizontally.

It appears that, the squatters being comparatively new migrants to the city are on the one hand, more agile to make sizeable effort for getting a relatively better housing

accommodation and on the other, the slum-dwellers give up further attempts, become fatalistic and feel more secure in the culture of the slum living with or near ^{the} people of some village or caste or relatives or religion. However, the proportion of all the two groups and their aggregate in regard to non-movers is about 75 percent (or three-fourths). (See Table-4.04)

4.20 The migrants (belonging usually to weaker sections of the population) when they come for the first time in a big city find every thing curious - in regard to the affluence of the city - and above all its bigness and also find the unaccustomed people (including even relations) very busy, strange, largely impersonal and very few to help (or help out) the new comers. In spite ^{of difficulties} by good luck or character or intelligence and sweetness as also humility, may induce the kindness of the residents/ early migrants in getting some help to get a job or work and also accommodation to live. Nonetheless it is an irony of city life that 926 (or 92.6 percent) of the 1000 sample households did not get any help - they operated their furrow on self-help basis. But 38 (or 3.8 percent) of the households, did get help in getting work, job; 22 (or 2.2 percent), got help in getting accommodation; and 14 (or 1.4 percent) got help in some other form. Thus in all, 7.4 percent got some help or the other and 92.6 percent did get 'no-help'; this is the way of life in a big city.

Table-4.06: Type of help rendered to Migrants after going to Kanpur

Migrants	No help	Help in getting work/job	Help in getting accommoda-tion.	Other help	Total
Slum dwellers	737 (92.1)	31 (3.9)	21 (2.6)	11 (1.4)	800 (100.00)
Squatter dwellers	189 (94.5)	7 (3.5)	1 (0.5)	3 (1.5)	200 (100.00)
<u>Total</u>	<u>926</u>	<u>38</u>	<u>22</u>	<u>14</u>	<u>1000</u> <u>(100.00)</u>

4.21 Economic assets that the migrants left behind in the native places, provide a portrait of their earning capacity which offers wherewithal a living to the members of the family left behind. Mostly, it is land which is the important productive asset in the villages. Nearly 30-31 percent of the aggregate of the slum and squatter households 'did not leave behind any asset' - the individual proportion for the slum-households is 29.5 percent; and 34.5 percent, for squatter households. The people who own some land on 'bhoomidari' basis constituted 23 percent out of 1000 sample households - in four class-groups of (a) upto 1 acre; (b) 1-2 acres; (c) 2-5 acres; and (d) more than 5 acres. The percentage for slum dwellers was 23.7 and for squatters, 20 percent (see Table 4.07.)

Table 4.07: Land Assets and Sizes of the 1000 Sample Households of Kanpur - left in the Native Places where they migrated

Type of house- holds	Land	No land	Bhoomidari Land	Ryotwari Land	Not applicable for non-migra- nts Kanpur residents	Total
(1)	(2)	(3)	(4)	(5)	(6)	
Slum households	236 (29.5)	190 (23.7)	8 (1.0)	366 (54.7)	800 (100.00)	
Land (a) upto 1 acre	-	115 (14.4)	-	-	-	(80.00)
(b) 1-2 acres	-	47 (5.9)	-	-	-	
(c) 2-5 "	-	26 (3.2)	-	-	-	
(d) More than 5 acres	-	10 (1.2)	-	-	-	
Squatter House- holds	69 (34.5)	40 (20.0)	4 (2.0)	87 (43.5)	200 (100.00)	
Land (a) upto 1 acre	-	29 (14.5)	-	-	-	(20.00)
(b) 1-2 "	-	8 (4.0)	-	-	-	
(c) 2-5 "	-	2 (1.0)	-	-	-	
(d) More than 5 acres	-	5 (2.5)	-	-	-	
Total (%)	305 (30.5)	230 (23.0)	12 (1.20)	453 (45.3)	1000 (100.00)	

Note: Figures within brackets show percentage horizontally and vertically for Col.6 only.

4.22 The underlying factor of a relatively larger percentage for slum-households stems from the fact that the proportion of 'bhoomidari' land average owned by the slum migrants of '1 acre to 5 acres or more', is 10.3 percent as shown in Table 5.06; and for squatter migrants, 7.5 percent. Again, the rythwari land (on rent) for cultivation purposes available to slum-dwellers is only 1 percent and to 2 percent to squatter dwellers; this being not economic operationally induced the latter to come down to the city. Rest of the slum-dwellers and squatters numbering 453 (45.3 percent) being non-migrants - the question of their owning land ^{in native place}/does not arise.

S U M M A R Y

Migrations assume four streams: (i) rural to rural; (ii) rural to urban; (iii) urban to rural; and (iv) urban to urban; this survey is concerned with (b) and (d) type of migrations as well as minus factor of (c) type of migration. The data on migration were for the first time collected in 1961 Census. National

Sample Survey Report/53 have classified migrations according to time factors ranging from 3-10 years. The city surveys carried out under the sponsorship of the Research Programme Committee (Planning Commission) in 21 cities bring out data on internal migration which can be of service for policy purposes.

Some Studies done by individuals establish that rural migrants to urban areas are not the agricultural labours but it is the landless labour and they are the one who are largely pushed out to urban areas; the unemployment rate in the urban areas is also more for the non-migrant urban residents rather than that for rural migrants in urban areas. NCAER's study on Urban Income and Saving (1962) has brought out that the non-migrant urban household's income is lesser than that of the migrants;

the migrants from small towns earn more than those from villages; migrants from cities earn more than those from smaller towns and migrants from foreign countries earn more than the city migrants. Thus a non-migrant in the city becomes relatively stale in his marginal efficiency than a migrant.

As the migrants came with hopes to Kanpur, and the supply of houses was not coming up the urban settlements grew in unplanned way as well as on unauthorised land. Houses built in illegal and unauthorised way appear every day in almost all parts of the town. In the slum and squatter settlements, a large proportion of the voters

lived and they commanded the attention of the cultural and political elites. However, the provisional and temporary shacks demonstrate traditional local touch but they lack institutional character and suffer from pragmatism. One-room squatter, hovels abound in slum and squatter settlements.

The survey done, in 1976, by I.I.P.A. reveals that 45 percent of the households lived in Kanpur since birth in slum and squatter colonies. 17 percent migrated before 1947 and another 17 percent, between 1948-60, 16 percent between 1961-1970 and only 5 percent came after 1970. The acceleration in the proportion for the squatter households was a larger one during 1961-70 because of 'laissez faire' in the development of uncontrolled growth of unauthorised dwellings on public and private land, at the outskirts of the city and in the fringe areas.

One-third heads of the slum and squatter households initially migrated to Kanpur either alone or with wife but the latter just formed 1/10th of this composition. About 45-46 lived in Kanpur since birth; consequently, migrants for ^{med} only 55 percent of the total household heads. In case of squatters, only the migrants came largely with friends rather than with family members. About 3/4th of the migrants settled themselves in slum and squatter settlements where they arrived first and the rest either moved out from the first place of stay because their family sizes were larger.

The conceptual definition changed from one census to the other as regards 'migration'. But when the "migration" was defined in 1961 'from the birth place to place of enumeration', the proportions of migrants rose to 30.7 percent from 3.3 in 1951-61; again, it is the short-distance migrants who constitute the two-thirds of total migrants; medium distance, one-fifth and two-fifteenth, from long distance.

Persons who migrated were motivated by different reasons; 44 percent, because they had 'friends and relatives' in Kanpur, 27 percent because they 'had no land to cultivate'; 6.3 percent, due to 'family quarrels and intrigues' etc. However, after coming to Kanpur, only about 25 percent, shifted to other areas and 75 percent stick to the first permanent area of habitation. Again, only 7.4 percent of the sample households' heads sought and got help either in getting a job/accommodation/other help- and 92.6 percent did not seek or got help.

Only land formed 'assets', at native places, for the migrants - and about 30 percent of slum-households, and 35 percent of 'squatter households did not have any land left in native place; 20-23 percent, had bhoomidari land; and 1-2 percent, ryotwari land; and 43 percent of slum households and 45 percent of squatter households were non-migrants, the asset factor at native place is not applicable.

**Annex-4.01: Sampling Methods, Sample Coverage, Periods,
Population-size, and Rank of city.**

Name of city (1)	Nature of Sample (2)	Coverage of families or households (3)	Coverage of persons (4)	Periods covered by the surveys (5)	Population in 1951 (6)	Rank of city according to Census population (7)	Area of the city (8)		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Baroda	Random(10% of total households)	4202	20,459	July-1954-March 1955.	2,11,407	28	10.9 sq. miles.		
Bombay	Random Ward-wise (Main households in 3% tenements)	13369	63,168	August 1954- March 1957.	28,29,270	2	(169 sq.m)		
Gorakh-pur	Stratified Random (24% of households in selected sample Blocks)	2164	11,647 (7% of the total)	April 1954-April 1955	1,32,436	49	19.20 sq.m.		
Hubli	Systematic Random(11% of total families)	2589	14,001	May 1954-Jan. 1955	1,29,609	54	7 sq.m.		
Hyderabad	Systematic Random (2.68% of total households)	4899	32,173	July 1954-July 1955	10,85,722	5	?		
Secunderabad	Stratified Systematic (5% of total families)	2368	13,685	1954-1955	2,18,162	27	31 sq.m.		
Jamshedpur	Two-Stage stratified Random(8.3% of Households)	4914	" "	"	6,60m225	8	?		
Lucknow	Stratified Random(15% households in selected sample blocks.)	4099	21,821 (3.5% of the total)	April 1954-June 1955	4,96,861	10	16 sq.m.		
Poona	Systematic Random(4% of families on Ration Cards)	5601	26,033	March 1954-July 1954	4,80,982	9	50 sq.m.		
Surat	Register Systematic Random(6.2% of total households on Ration Cards Register)	2800	15,286	June 1954-Oct, 1954	2,23,182	26	31 sq.m.		

Source: Bulsara J.F.: Problems of Rapid Industrialisation in India,
1964 (Popular Prakashan, Bombay)

VII. CIVIL SURVEY REPORT ON THE SQUATTERS OF KANPUR CITY

Chapter-V : Housing Conditions and Infrastructure

(1) Physical Conditions of Houses for the Migrants 5.1 It flows from a survey of a sample of 1000 households (800 slum households and 200 squatter households) that 45.3 percent of heads of the household lived in Kanpur and rest of 54.7 percent were migrants of which 14.8 percent of the households had no house at the places of origins of emigration; 36.1 percent, had 'kutcha' houses and only 3.6 percent had 'pucca' houses. In case of slum 800 households, those who lived in Kanpur since birth the proportion was 45.7 percent and the out of the remaining migrants were 54.3 percent, of which 15 percent did not have a house at the places of origins of emigration, 35 percent had 'kutcha' houses and 4.3 percent had 'pucca' houses. Whereas in case of 200 squatter households, 43.5 percent had lived in Kanpur since birth and the other 56.5 percent were migrants of which 14 percent had no house at the places of origins of emigration; 40.5 percent had 'kutcha' houses and only 2 percent pucca houses. Thus, it is clear that in general, physical housing conditions were very poor for the migrants both the slum dwellers / squatters, but they were much poorer and as such in rural areas had further worsened unauthorized houses on unauthorised land. (See Table 5.01)

Table-5.01: Type of Physical conditions of the Houses at Native Places of the Migrants - Slum Dwellers and Squatters in Kanpur City.(in 1976)

Type of Dwellers	Type of Houses	Pucca houses	No house	Kutcha Houses	Not applicable	Total
Slum Dwellers	%	120 (15.00)	34 (4.30)	280 (35.00)	366 (45.70)	800 (100.00)
Squatters	%	28 (14.00)	4 (2.00)	81 (40.50)	87 (43.50)	200 (100.00)
Total	%	148 (14.80)	38 (3.80)	361 (36.10)	453 (45.30)	1000 (100.00)

Note: Figures within brackets show percentages horizontally.

i) House Designs 5.02 In big-sized cities, and more so in metropolitan cities, land-supply being scarce and costly, it becomes of utmost importance to affect economy in land-use. So also it is essential to make minimum of use of building materials - particularly the key materials. So also it is of crucial to develop designs for houses which provide compact houses, more open space etc. However all these elements are thrown to winds, and this creates a wide-gap between the money, materials and labour spent and the final product obtained; the attention to these aspects become more meaningful for low-income families and slum-dwellers and squatters - with their limited income, savings and lack of infrastructure of influence and contacts. Back to back houses can reduce wall construction of one wall; it reduces for two back-to-back houses by two walls (that is six walls, in place of eight walls). But if it is row construction of say 10 houses - it at once reduces the side walls from 20 to 11 besides - making a sizeable economy in landuse. However, in slum areas, no guidance is available; and it is found that, a major part of house construction are not in row-form. Only, little over 50 percent of houses are having side walls common, but the unit complexes are small - materials used are sub-standard without any uniform denominator - no system technique is observed. The data in Table-502 explain this aspect in regard to Kanpur slums and squatter settlements which is economical.

Table-5.02: Localising of a house in relation to other houses either with (1) back to back wall or (2) side to side walls or (3) common walls in slums and squatter settlement in Kanpur City (in 1960)

Loca- tions walls	Slum/ squatter areas	Slums	Squatter settlements	Total
I. Back to back	71	13	84	
	(8.90)	(6.50)	(8.40)	
II. Side to Side	444	99	543	
	(55.50)	(49.50)	(54.30)	
III. Common walls	285	88	373	
	(35.60)	(44.00)	(37.30)	
IV. Total	800	200	1000	



Opposite
Table
5.02

PHOTO PLATE
SL.1

SL-1
with Animals, Open Drains and Paved Lanes (in overcrowded
Slum area of Babupurwa) (in some 'pucca' and semi-pucca
construction in KANPUR)

SL-2
Curtains serving as doors and/or walls in a slum area of
Reelkhana Slum - where beggars frequent (in Kanpur) and animals
abuse.



PHOTO PLATE NO.
SL.2

cy-
s- 5.03 However, both the migrants to the city and those having lived since birth in Kanpur city were owning houses or were living as tenants. Those who owned houses were only 227 or 22.7 percent; thus, 77.3 percent out of 1000 sample households were living as tenants in the slum and squatter dwellings. Out of 227 house owners, 96 slum dwellers and 119 squatters owned 'one' house; 5 slum-dwellers and 4 squatters owned 'two' houses; and 8 slum-dwellers had 'more than two' houses. In effect, out of 227 house owners (or 92 percent) had 'one' house; and 4.5 had 'two' houses and another 3.5 percent, 'more than two houses.'

Table-5.03: Frequency of Number of houses ownership by slum-dwellers and squatters.

Frequency of Number of Houses owned	Slum dwellers and squatters		Squatters	Total
	Slum dwellers	Squatters		
Nil	691	82	773 (77.30)	
One	96	114	210 (21.00)	
Two	5	4	9 (0.90)	
More than two	8	-	8 (0.80)	
<u>Total</u>	<u>800 (80.00)</u>	<u>200 (20.00)</u>	<u>1000 (100.00)</u>	

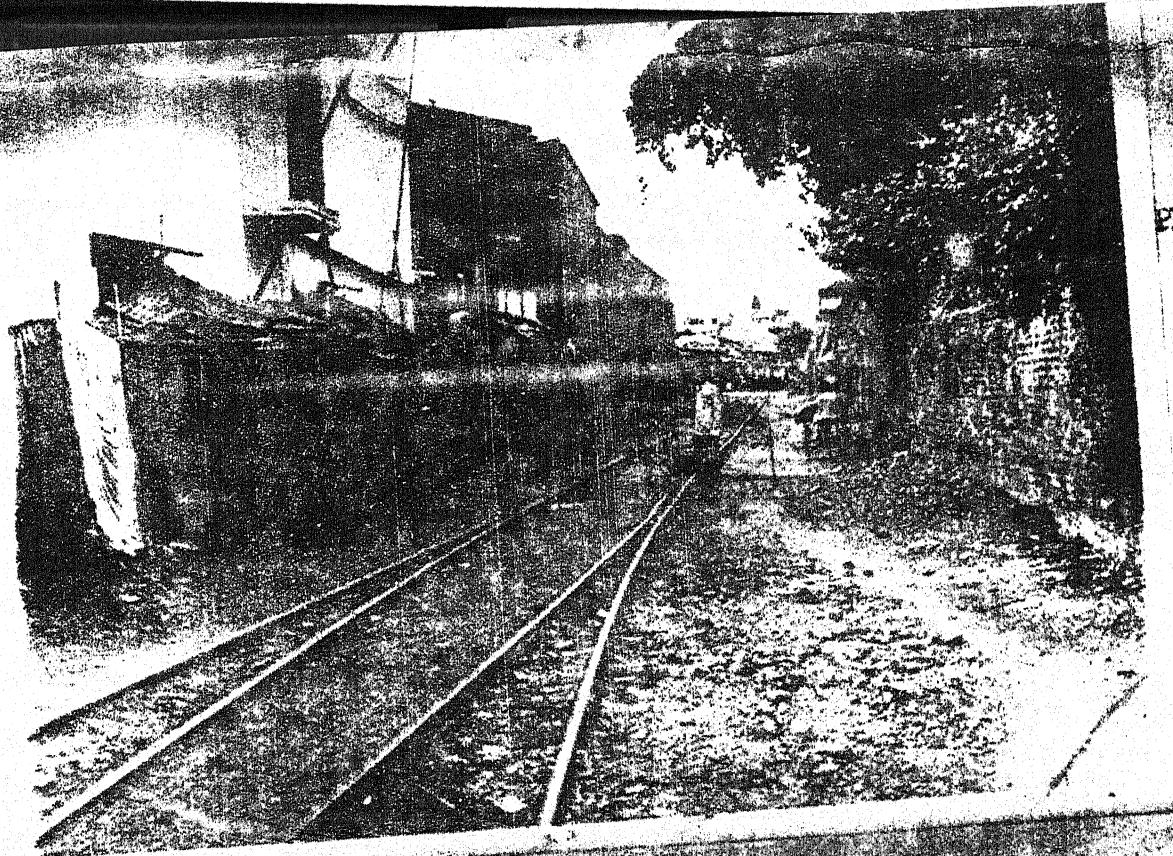
5.04 Nonetheless, it is clear that in regard to house-ownership, squatters were much better placed; of them only 41.6 percent who did not own houses, whereas slum-dwellers' proportion was 89.4 percent in this attribute; 'one' house ownership number by squatters was 57.0 percent and that of slum-dwellers 12 percent; for 'two' house ownership, slum-dwellers proportion was 0.6 percent and that for squatters 2 percent. However, for more than two houses, the ownership proportion of slum-dwellers was 1 percent but

nil for squatters. The better ownership by squatters is primarily due to the circumstances of no capital cost for the land (with unauthorised and illegal possession of land in the fringe areas of the city)

(iv) Overcrowding & Congestion

5.05 It is of value to know, the situation of overcrowding and congestion in slums and squatter settlements in Kanpur city that abound often in slum and squatter colonies. It can be observed that 56.3 percent of the slum-dwellers and squatters, out of 1000 sample households in Kanpur city were living in houses where the living space on an average for a family available was less than 20 sq.m.; 29.8 percent of the families, had an accommodation ranging between 21-50 sq.m.; and it were only 13.9 percent of the families, on an average, had a living space of more than 50 sq.m. Specifically, the proportions of families both of slum-dwellers and squatters, with an average living space per family of less than 20 sq.m., were little over 55 percent. But the wide differences developed, in regard to average living space per family, in regard ranges of 21-50 sq.m. and "more than 50 sq.m"; in the former group (that is 21-50 sq.m) the percentage of slum-dwellers and squatters had a gap of about 10 points (i.e. 31.9 percent for slum dwellers and 21.50 percent for squatters); in the latter group (that is, more than 50 sq.m) the proportion were respectively 11.50 percent and 23.00 percent for squatters. It suffices to observe that a higher proportion of the squatters had a better and larger availability of living space than the slum dwellers - the underlying logic is parallel to what already commented at the end of paragraphs 6.01 and 6.04 (For details of data see Table 5.04)

5.06 It is also interesting to note that nearly 56 percent of the slum ^{house} _{holds} had less than 5 average members in a family; whereas this proportion was 73



Abonile
Tape
5.0

PHOTO PLATE NO
SQ.1

S.Q.1
Unauthorized Squatter "Kutcha" Settlements on Public Land
belonging to Northern Railways (in Kanpur).

S.Q.2
Unauthorized Squatter "Kutcha" Settlements on Private Land
and under the roof of Private Dwellings (in Kanpur)
along with

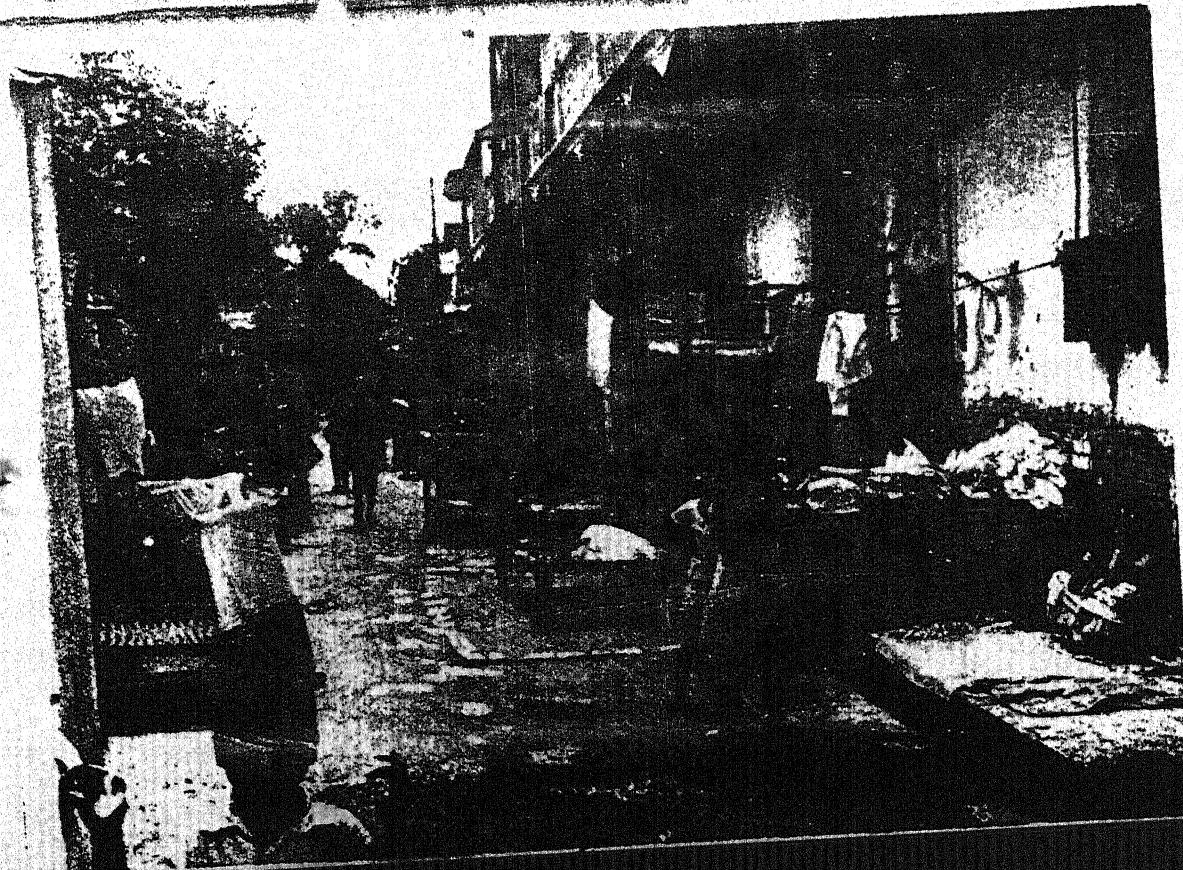


PHOTO PLATE NO
SQ.2



percent in case of squatter households. Again within therefore-said proportion, the / proportion of families having on average less than 3 members were about 41 percent in case of both the slum-dwellers and squatters. Thus small families and lesser living space had a high correlation; so also bigger size families and larger space also went hand in hand for the slum-dwellers as well as squatters.

Table-5.04: House^{hold} size and Living Space in sq.m. and Degree of Overcrowding and Congestion in 1) Slums and Squatter Settlements in Kanpur City (in 1976).

Number of Family Members in class int- ervals (1)	Living space in sq.m.			Total (5)	
	Slum dwellers/Squatters				
	Upto 20 sq. m	21-50 sq.m.	Above 50 sq.m.		
1-3	149	59	20	328	
4-5	138	77	16	231	
6-8	126	84	37	247	
9-11	31	26	10	67	
12-15	7	9	8	24	
Above-15	1	0	2	3	
<u>Sub-Total of slum-dwellers</u>	<u>452 (56.60)</u>	<u>255 (31.90)</u>	<u>93 (11.50)</u>	<u>800 (100.00)</u>	
1-3	56	13	13	82	
4-5	30	15	19	64	
6-8	20	8	18	41	
9-11	5	2	1	8	
12-15	-	5	-	5	
above-15	-	-	-	4	
<u>Sub-Total of Squatters</u>	<u>111 (55.50)</u>	<u>43 (21.50)</u>	<u>46 (23.00)</u>	<u>200 (100.00)</u>	
<u>Grand Total</u>	<u>563 (56.30)</u>	<u>298 (29.80)</u>	<u>139 (13.90)</u>	<u>(1000) (100.00)</u>	

Note:- Figures within brackets indicate percentages.

507 A larger part of the 'utility of housing comfort' emanates from room(s) - its size and the materials of walls, roofs and the floors and that conditions the pressure of

1) According to R.P.C.(Planning Commission's) sponsored Surveys of Cities (Baroda, Bombay, Gorakhpur, Hubli, Jamshedpur, Lucknow, Poona, Hyderabad -Secunderabad for the average family size (during 1950's) ranged from 4.6 persons in Lucknow to 6.6 persons; proportion of single person family, 2-3 person families, 4-6 person families, 7-9 person families and 10 persons & above, the range lay between 1.8% to 38.3%; 12.1% to 38.3%; 38.1% to 42.9%; 15% to 28.9% and 4.9% to 9.2% respectively.

the number of people living in the room(s). The data tabulated on this aspect - emerging from the survey of 1000 sample households have been presented on some characteristics in classified form in Table 5.05. It turns out that 57.5 percent of the slum dwellers and squatters families were living in 'one room'; 25.7 percent, in two rooms; 6.3 percent in 3 rooms and 10.5 percent in 'more than three rooms'. In case of 800 slum dwellers, 54.5 percent of the households were in one-room house; 27.5 percent, in 2-room house ; 6.40/^{percent} in 3-room house; and 21.60 percent, in more than 3-room house. As against the foregoing, out of 200 squatter households, 69.5 percent were in one-room house ; 18.5 percent, in two-room house ; 6 percent, in three-room house ; and another 6 percent, in more than three-room house . Comparatively, it can be observed that a larger proportion (nearly 90 percent) of squatter households were living in one-room house, when the proportion for slum-households, was 54.5 percent. On the other, 21.6 percent of the slum households were living in 'more than 3-room houses' as compared to only 6 percent of squatter households.

5.08 In terms of global pictures -separately both for slum housing and squatter houses - the estimated rooms for the slum 800 households were about 1,494¹⁾; and in case of 200 squatter households rooms were 309. The average density of households/families on the slum-rooms comes to 1.87 households per room; and in case of squatter-rooms, 1.55 households per room. Thus higher burden was on the slum rooms, because slum households having family-sizes over '6 and over persons'- numbered 341 (or 45.1 percent)

1) For room one, two and three, the total rooms obtained were arrived by multiplying with the corresponding numbers of households; in case of 'more than three-room houses'- an average figure of 5 rooms has been taken. Consequently the number of rooms for all the slum-households came to 1,494 (that is, $436+440+153=465$); and for squatter households, 309 rooms (that is, $139+74+36=309$).

whereas, out of 200 squatter households, the family sizes over '6 and over persons' - numbered only 54 (or 27 percent)

Hence the element of over crowding was higher in the slums than in the squatter settlements. On the other hand, the number of rooms per household in case of smaller housing units upto 2-rooms, in case of slums came to 1.32 rooms and 1.21 rooms per squatter settlements households.

Table-5.05: Family size vis-a-vis No. of rooms in the housing unit of Kanpur-based Slum-Dwellers and Squatters. (in 1960)

Family-size (1)	No. of rooms in the unit					Total (6)
	One (2)	Two (3)	Three (4)	More than Three (5)		
1-3	153	39	9	27		228
4-5	128	68	14	21		221
6-8	122	74	24	27		247
9-11	22	34	1	10		67
12-15	10	4	3	7		24
above 15	-	1	-	2		3
<u>Sub-total</u> <u>of slum-dwellers</u>	<u>436</u> <u>(54.50)</u>	<u>220</u> <u>(27.50)</u>	<u>51</u> <u>(6.40)</u>	<u>93</u> <u>(21.60)</u>		<u>800</u> <u>(100.00)</u>
1-3	71	7	3	1		87
4-5	41	15	4	4		64
6-8	22	12	4	3		41
9-11	5	2	-	1		8
12-15	-	1	1	3		5
above 15	-	-	-	-		-
<u>Sub-Total of</u> <u>Squatters</u>	<u>139</u>	<u>37</u> <u>(18.5)</u>	<u>12</u> <u>(6.00)</u>	<u>12</u> <u>(6.00)</u>		<u>200</u> <u>(100.00)</u>
<u>Grand-Total</u>	<u>575</u> <u>(57.50)</u>	<u>257</u> <u>(25.70)</u>	<u>63</u> <u>(6.30)</u>	<u>105</u> <u>(10.5)</u>		<u>1000</u> <u>(100.00)</u>

Note: Figures within brackets indicate percentage distribution.

v) Doors & Windows 5.09 Openings of the rooms in the forms of doors, windows or any other openings for cross-ventilations serve as

the means of flow of fresh air/breeze, good sun-light, and as avenues to offer sights of sky, horizons and pleasing skylines. In the absence of these openings, life may become drab, health/^{full} of indebility, mind with staleness and few variations for refreshing after wearisomeness of day's work. In reality an optimum provision of windows/doors/and other openings creates a wholesome environ. In this regard, arising out of the survey, the data thrown are given in Table 5.06 and Table 5.07. From Table 5.06, it is clear that 13 slum houses do not have a door; and 603 slum houses do not have a window-forming 75 percent of the 800 sample households of slum dwellers; and the frequency is large in case of one-room houses-its percentage going as high as 90% as regards absence of windows. Just 470 slum houses (or 58.75 percent) have only one door; but out of them only 121 slum houses (or 25.75 percent) have windows. However, 174 slum houses with 2-3 windows (or 21.75 percent) have two doors each, but only 56 (or 7 percent) have 2-3 windows each; 50 slum houses of which two-thirds of the houses/^{with} one 3-room houses (or 6.25 percent) have three doors; and "more than 3-room houses" numbering 51 (or 6.4 percent of 800 slum houses) have 93 doors but only 20 windows. Hence, it can be seen that the elements of doors and windows per room or a house are very poorly fixed - and all these factors adversely affect the health, productivity, income, welfare etc. including the poor inputs of education and literacy (or absence of literacy).

Table 5.06: Number of doors/windows vis-a-vis the 1-room, 2-room, 3-room and 'more than 3-room' houses in the Slum Settlements in Kanpur city.
(in 1976)

Number of Doors/ Windows	No. of rooms in houses	Houses				Total	
		1-room	2-room	3-room	more than 3-rooms	D	W
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
None	- D (Doors) W (Windows)	11 381	2 153	- 25	- 44	<u>13</u> (1.62)	603 (75.40)
One	D W	390 48	75 49	3 11	2 13	<u>470</u> (58.75)	121 (15.10)
Two	D W (2-3)	30 7	130 17	6 13	8 19	<u>174</u> (21.75)	56 (7.00)
Three	D W	4 -	10 -	34 -	2 -	<u>50</u> (6.25)	-
More than Three	D W	1 -	3 1	8 2	81 17	<u>93</u> (11.63)	20 (2.50)
Total	D W	<u>436</u> <u>436</u> (54.5)	<u>220</u> <u>220</u> (27.5)	<u>51</u> <u>51</u> (6.4)	<u>93</u> <u>93</u> (11.6)	<u>800</u> (100.00)	<u>800</u> (100.00)

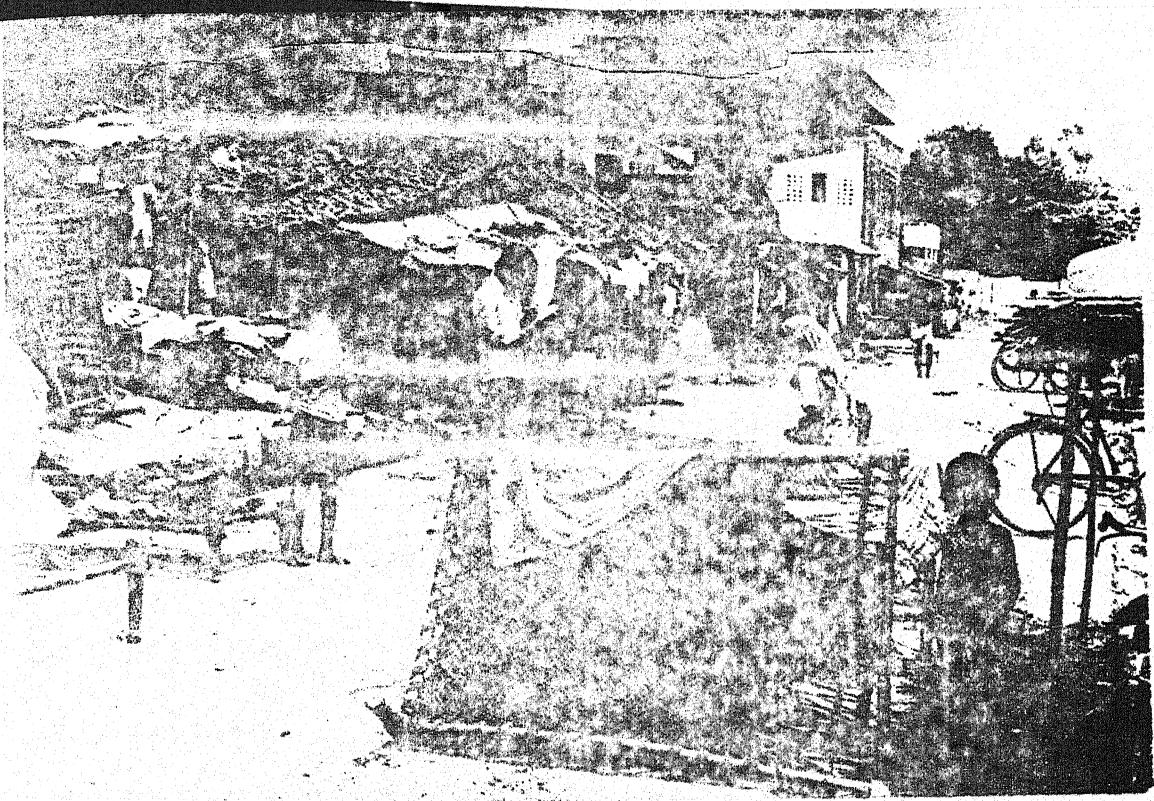
5.10 Table 5.07, presents the door and window provisions for squatter colonies - and it can be seen that 28 (or 14 percent) out of a sample of 200 squatter families/houses, have no door; and 180 houses (or 90 percent) do not have windows; 120 houses (or 60 percent) have only one door, but only 18 have one window each; 31 houses (or 15.5 percent) have 2-3 doors, but only two houses have 2-3 windows; and 12 houses (or 6 percent), have more than three doors, but only 3 houses have more than three windows. Further, out of 200 squatter houses, 139 (or 69.5 percent) are 1-room houses

of which 26 do not have a door at all and 131 do not have a window, and 106 houses have one door and only eight have a window each. Thus, it can be seen that this group of households, are the worst placed in relation to physical structure and design of the houses and provision of doors and windows. In all probability, 70 percent (or about two-thirds) of the squatter households and also about 55 percent of the slum-dwellers are those who belong to a group to whom the facility of doors/windows is like missing of two or three meals out of the four meals.

Table-5.07: Number of doors/windows vis-a-vis the 1-room, 2-room, 3-room, and 'more than 3-room' houses in the Squatter Settlements in Kanpur City (in 1976)

Number of Doors/ Windows	No. of rooms in houses					Total	
		1-room	2-room	3-room	more than 3-room	D	W
(1)		(2)	(3)	(4)	(5)	(6)	
None	- D W	26 131	1 30	- 9	1 7	28 (14.00)	180 (90.00)
One	D W	106 8	11 6	3 2	- 2	120 (60.00)	18 (9.00)
Two (2-3)	D W	4 -	25 1	2 1	- -	31 (15.5)	2 (1.00)
Three	D W	3 -	- -	6 -	- -	9 (4.50)	
More than three	D W	- -	- -	1 -	11 -	12 (6.00)	3 (1.50)
Total	D W	139 139	37 37	12 12	12 12	200 (100.00)	200 (100.00)

vi) Veran-
dahs 5.11 A supplement or a complement to a one or two room house, and also to 3 or 4 room house (& in case of the latter when the size of the members in the family/household is



Opposite
Table 5.c)

PHOTO PLATE NO
SL.SQ.1

Mixing of slums and squatter Dwellings, Street-mobile beds,
Ranking of cycle rikshaws - and open-street dormitory in
(in Kanpur)

Urban Slums in Subsidised Industrial 'Pucca' Housing
Scheme Area of Arya Nagar surround by garbage (in Kanpur)



PHOTO PLATE NO
SL.5

large ranging from '6-15-or more', a provision of a verandah becomes a boon; if the verandah is covered, it adds to the flavour. In case of Kanpur city's slums-dwellers and squatters is a moon-shine, for about 60 percent or two thirds of the households -- and covered verandah is a luxury ^{which is available to} only about one-fifth of the households. In case of the squatters, the situation is worst - since out of 200 squatter households, only 14 percent have a covered verandah and 10 percent/un-covered verandah; and more than three-fourths have no verandah at all

(See Table 5.08)

Table-5.08: Distribution of Presence or Absence and Type of Verandah for 800 sample slum-Households and 200 Squatter Households in Kanpur City (in 1976)

Verandah and its Type (1)	Slum Households (2)	Squatter Households (3)	Total (4)
I. No verandah	187 (60.90)	153 (76.50)	640 (64.00)
II. Covered "	188 (23.50)	28 (14.00)	216 (21.69)
III. Uncovered "	125 (15.60)	19 (9.50)	144 (14.40)
IV. Total	300 (100.00)	200 (100.00)	1000 (100.00)

Note... Figures within brackets contain percentage distribution vertically.

5.12 Lack of drains (or its present quality and maintenance) go to ruin (or make a sizeable difference in the health standards and quality of hygiene and pollution in

residential areas. In slum and squatter areas absence of various sanitary amenities - and water logging-particularly during rainy season plays havoc - and makes the life a misery for the population, and raises the infantile mortality to a distastefully high proportion. In case of Kanpur, the Survey tells a situation of destitution. Nearly, two-thirds of the slum-dwellers and three-fourths of the squatter

households have the malady of water-logging as a regular feature during the rainy season (See Table-6.09). This does not, however, follow that water logging is absent in seasons other than rainy - because waste-water and liquid pollutions of the urine and night-soil - both ^{from} human beings and animal population which exists in houses in the slum and squatter areas breed all types of diseases in the absence of channels/drains for outflows.

Table-5.09: Presence or Absence of Water-logging during Rainy season in Kanpur city's Slum and Squatter Settlements.

Presence/Absence of water-logging	No. of Households		Total
	Slum	Squatter	
(1)	(2)	(3)	(4)
I. Presence	514 (64.20)	149 (74.50)	663 (66.30)
II. Absence	286 (35.80)	51 (25.50)	337 (33.70)
III. Total	800 (100.00)	200 (100.00)	1000 (100.00)

Note: Figures within brackets indicate percentage distribution vertically.

(vii) Animal Population

5.13 It is not only the man-folk who inhabitate the slums and squatter settlements; but the households keep the animals like the milching cows and buffaloes; and also pigs and goats, for meat; donkeys and horses, used for drawing vehicles or loading the materials for transport; and hens and chickens, for eggs and other poultry products. Quite often these animals share the living space of the room or rooms as well as verandahs along with the family members; thus density per room or degree of overcrowding in the house or the room in relation to all living beings is pretty high. However, the possession of animals is by about one-fifth or one-fifth households: 15 percent for slum households and 21 percent for the squatter households and the overall percentage is 16.3 percent ^{out of} for all the 1000 sample

Table
5'10

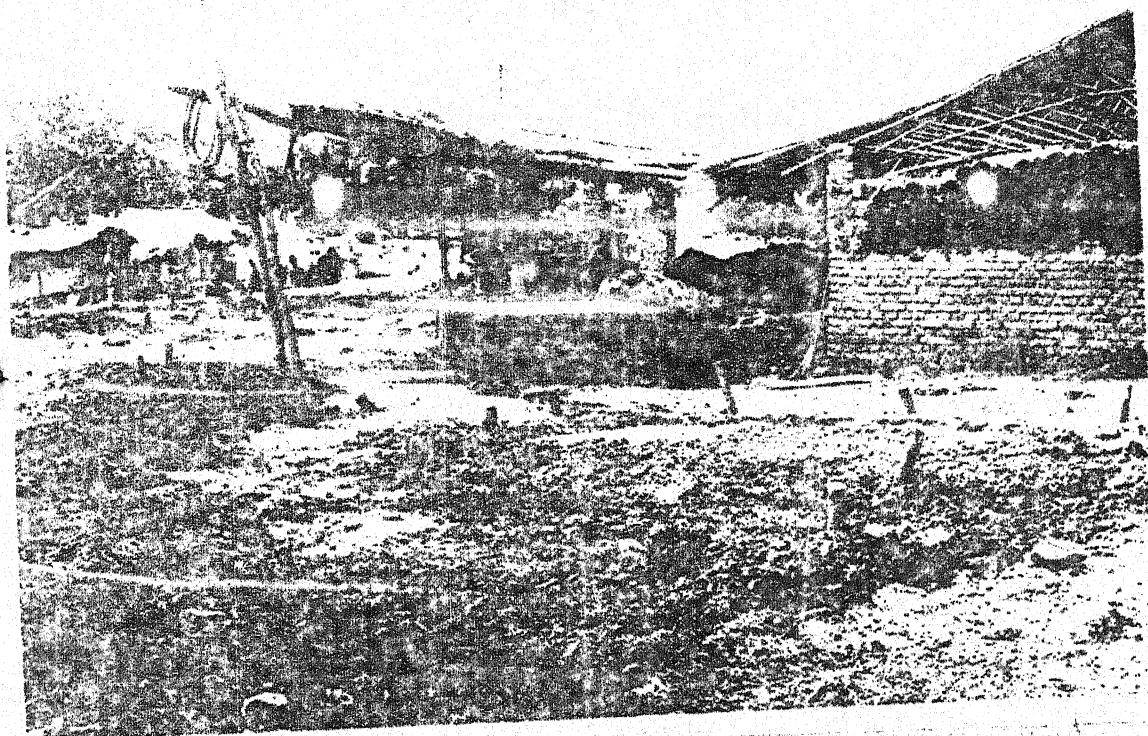


PHOTO PLATE NO.
SQ.SL.2

SQ-SL.2
Animals & men live together and animal dung dried in round shapes on brick walls - to function as a fuel and garbage all the way - in affluent colony of Swarup Nagar (in Kanpur)

SL-6
animals relaxing in Pandu Nagar Slum - Colony (In Kanpur)

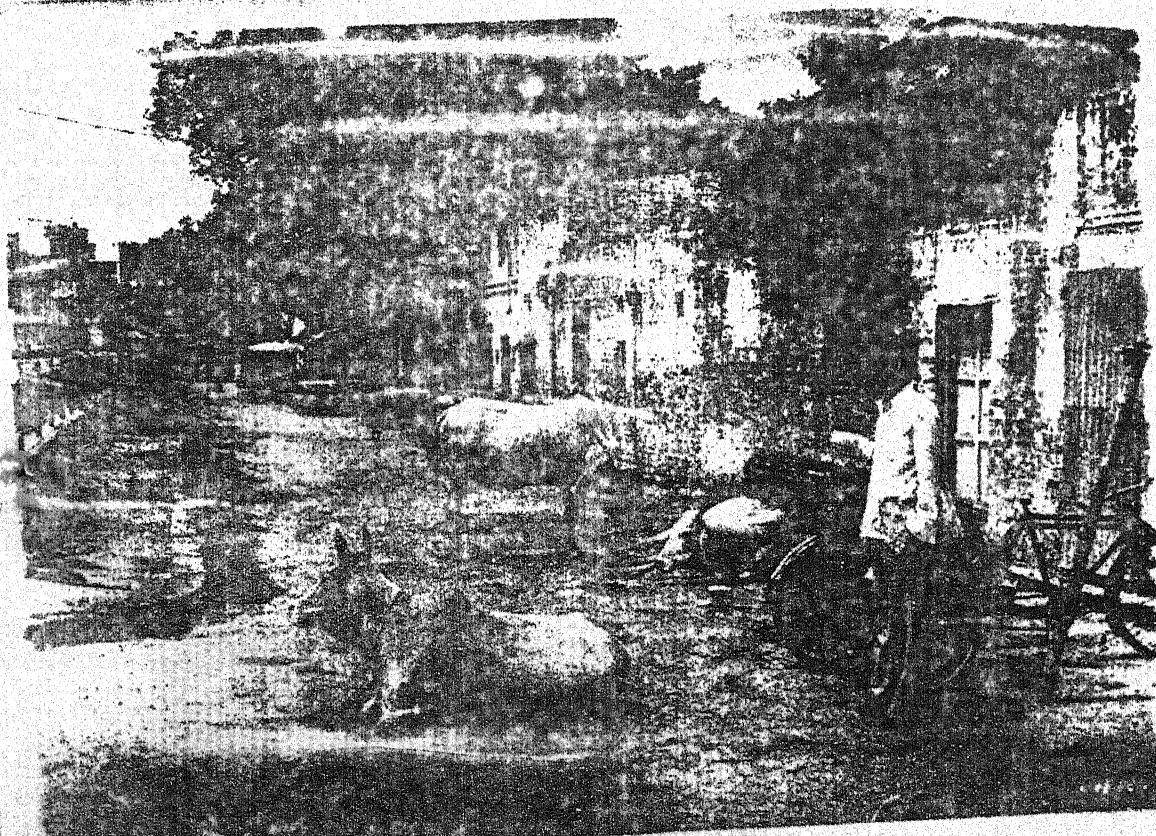


PHOTO PLATE NO.
SL.6

slum and squatter settlements. Some of the households are having cows/buffaloes, pigs/goats/donkeys and hens and chickens ranging from 1-3 or more. The proportions of households keeping cows, in the slum areas is 7.4 percent, and 8.5 in squatter areas; for buffaloes, 3.3 percent and 5.5 percent respectively; for pigs, 0.8 percent and 3.5 percent; for goats, 5 percent and 4 percent; for donkeys, 'nil' and 0.5 percent; for horses, 5 percent and 4 percent; and for hens and chickens, 2.3 percent and 3 percent (See Table 5.10)

Table 5.10: Proportions of Slum and Squatter Households holding different Types of Animal Population (numbering '1-3 and more') - in houses in Kanpur city (in 1976)

Type of Animal	Slums (in percentages)	Squatters
I. Cows	7.40	8.50
II. Buffaloes	3.30	5.50
III. Pigs	0.80	3.50
IV. Goats	5.00	4.00
V. Donkeys	nil	0.50
VI. Horses	5.00	4.00
VII. Hens and Chickens	2.30	3.00

Note: Percentages for slums are of 800 slum households and for Squatter areas of 200 squatter households.

5.14 An analysis of the data according to types of the structures of the houses (i.e. either 'pucca', 'semi-pucca' and 'katcha') in relation to rents paid for them by the tenant-residents - reveal quite many interesting insights. The monthly rent amounts are grouped under five classes: (1) 'Nil' rent; (2) upto Rs.5; (3) Rs.6-10; (4) Rs.11-20; and (5) Rs.20 and over.

(ix) Rent-
levels

5.15 Those households who did not pay any rent in Class-I, numbered 3431 177 in slums and 166 in squatter settlements; of these 227 have own houses and the other

2a) In Kanpur 34.3% of households did not pay rent-but only 22.7% owned houses and the 11.6% were rent-free households; the proportion of house-owning households in R.P.C Surveys 11 cities ranged from 4.8% in Bombay to 48.3% in Gorakhpur; rented houses' proportion ranged from 49% in Gorakhpur to 87% in Bombay; however, the range of rent-free houses ranged between 4% in Surat to 11.3% in Lucknow. In case of Kanpur, in 1950's the owned houses proportion was 18%; for rented 76%.

116 (as shown under Column-14 of Table 5.11) also did not pay rent as they had 'rent-free' accommodation provided by the employers. Nonetheless, conceptually it is true that households in Class-I, in any case pay rent to themselves (for self-occupied own-house) or is included as a part of gross-salary (or wage) due to them from the employers. Thus, 34.3 percent of the 1,000 sample slum and squatter households, did not pay rent; however, the proportions for the slum-dwellers was 22.1 percent (out of a total of 800) and for squatters 83 percent (out of a total of 200). It is probably the 166 squatters - who do not pay (or do not get rent-free house from employers or own houses - but in an unauthorised way; but out of 177 slum-dwellers, perhaps 116 get rent free accommodation and the rest 61 of them do not pay any rent either because they are highly dilapidated houses made of 'kutcha' materials - and 'khata owners' are either dead or have left Kanpur city or have not found it worthwhile to lay claim for rent.

5.16 Another point is that number of 'kutcha' structures are more in squatter settlements (about 96 percent for floors); in Class-I out of 166 'Nil-rent' category than in slum colonies (about 75 percent for floors), the proportion shapes this way-through the percentages taper off from 'kutcha' roof invariably. Actually, those who have 'kutcha' roofs are only about 37.5 percent in slum colonies though about 66 percent in case of squatters; it conveys that keeping a roof as a 'pucca or semi-pucca' protects the house against rains, heat, cold has a higher propensity. To translate the capacity into action is non-existent to 178 slum and squatter dwellers (nearly 50 percent) out of a total of 343 in Class-I. Incidentally, as a policy guide it is wise to regard a house as of quality for the low-income and economically weaker classes if the pucca 'roof' is provided as it is more essential than the 'floors' and 'walls' in face of tight situation on the financial string or purse, the

Therefore, priority in housing subsidy should relate in favour of 'roof' than other basic structures like the walls and floors.

5.17 In Class-II (with rent upto Rs.5/- p.m.), there are 156 (15.6 percent) households out of 1000 sample households: 148 in slums (or 18.5 percent) and only 8 (or 4 percent) in squatter settlements - probably because the ownership (though illegal) is sizeably prevalent in these settlements. In this class also, the propensity to have pucca or semi-pucca roof is high - and the number of kutchha 'roofs' is much less than in regard to 'kutchha' floors and walls. Again, there is a rise of 'pucca' and 'semi-pucca' roof structures almost throughout both for the slum-dwellers and squatter households,

5.18 In Class-III (with rent between Rs.6-10 p.m.) in the households are 212 (or 21.2 percent), out of 1000 households: 202 (25.3 percent) in the slums and 10 in squatter settlements (or 5 percent) for the probable reasons given in the last two paragraphs. The trend in regard to decline in the number of 'kutchha' roofs as compared to the structures of walls and floors marches faster than in the earlier two classes-I and II; and the rise in the numbers and proportions of 'pucca and semi-pucca' roofs gathers momentum unabated.

5.19 In Class IV (with rent between Rs.11-20 p.m.), in all there are 191 households (or 19.1 percent): 177 (or 22.1 percent) in slums and 14 (or 7 percent) in squatter areas - the likely rationale is almost the same as in Classes I, II and III. The trend assumes the identical character of decline in 'kutchha' roofs and make-up in 'pucca' and 'semi-pucca' roofs - though the speed in both the momentum might have been at a little slow rate.

5.20 In Class V (with rent between 'Rs.20 and over' p.m) the number of households is 98 (or 9.8 percent) out of 1000 sample households: 96 (or 12 percent) in the slums, and 2 (or 1 percent) in the squatter colonies and the logical

grounds seem to be nearly the same as they have been in operation in Classes I to IV. The shape of the trend in regard to deceleration in the number and proportion of 'kutcha' roofs and an incline in favour of more of 'pucca' roofs as the rent paying capacity of the households moved upwards and in case of 'semi-pucca' the momentum was in no way shaping downwards.

5.21 A point of difference comes out boldly that the rent-paying families/households were 77.90 percent amongst the slum-dwellers whereas in case of squatter households only 17 percent. (For details see Table 5,11)

Table 5.11: Rent ranges in Slum and Squatter Settlement according to Pucca, Semi-Pucca and Kutchha House Structures.

Rent Range per month (in Rs)	Slums				Squatters				Total			
	Type Pucca of brick & cement	Semi Pucca	Kutcha	Total	Type Pucca of brick & cement	Semi Pucca	Kutcha	Total	Type of brick & cement	Pucca	Semi	Kutcha	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
I. Nil												
Floor	18	26	133	177 (22.10)	7	5	154	166 (83.0)	25	31	299	343 (34.30)
Wall	18	54	105		6	9	151		24	63	256	227
Roof	20	91	66		15	38	112		35	129	178	owned houses (* 116) could have paid rent but had rent free accommodation
II. Upto Rs. 5												
Floor	11	32	105	148 (18.50)	-	-	8	8 (4.00)	11	32	113	156 83 (15.60)
Wall	16	54	78		2	1	5	18	55	55	129	
Roof	12	90	46		3	2	3		15	92	49	
III. 6-10												
Floor	11	28	163	202 (25.30)	-	-	10	10 (5.00)	11	28	173	212 (21.20)
Wall	11	76	115		-	-	10		11	76	125	
Roof	18	117	67		-	5	5	18	122	122	72	
IV. 11-20												
Floor	13	37	127	177 (22.10)	2	-	12	14 (7.00)	15	37	139	191 68 110 (19.10)
Wall	12	65	100		1	3	10	13	20	120	51	
Roof	19	115	43		1	5	8					
V. 20 and over												
Floor	9	27	60	96 (12.00)	-	-	2	2 (1.00)	11	27	62	98 44 43 (9.80)
Wall	9	44	43		2	-	-		11	44	43	
Roof	17	66	13						17	66	13	
Total I+II+				800				200				1,000
III+IV+V				(100.00)				(100.00)				(100.00)

Note: Figures within brackets indicate percentage vertically in col. 6, 10 and 14.

(x) Co-tenancy & Sub-tenancy 5.22 A large number of slum and squatter households (72.5 percent) do not have any co-tenants or sub-tenants - the specific proportions being 70.2 percent for the slum households and 81.5 percent for the squatters. But the rest of the households (27.5 percent) do keep co-tenants to supplement their low-income levels or to oblige an immigrant relations - till they find their workable footings in the city. The number of co-tenants ranges from 1-10 and more in a household; this process of doubling or trebling of the households in a house bring about suffocating overcrowding and becomes injurious to the health and productivity of all the inmates. It is further, miserable that the size of the co-tenants (that is, overcrowding) and their number and proportions go hand in hand -with a vicious circle of poverty, low-income, overcrowding, high death and infant mortality (as shown below in Table-5.12,

Table 5.12: Slum and Squatter Houses having Co-tenants/sub-tenants in Kanpur city.
(in 1976)

Sl. No.	No. of co-tenants	Slum houses	Squatter houses	Total
I.	Nil	562 (70.20)	163 (81.50)	725 (72.50)
II.	1	31 (3.90)	4 (2.00)	35 (3.50)
III.	2-4	42 (5.30)	9 (4.50)	31 (5.10)
IV.	5-6	35 (4.40)	4 (2.00)	39 (3.90)
V.	7-10	45 (5.60)	4 (2.00)	49 (4.90)
VI.	More than 10	85 (10.60)	16 (8.00)	101 (10.10)
VII.	<u>Total</u>	<u>800</u> <u>(800.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Note: Figures within brackets indicate percentages vertically.

(xi) 5.23 The question of maintenance of the capital asset of a Maintenance of Houses house (irrespective of the magnitude of the structure) is

important because it involves the 3-4 years' of average income of the adult income of any worker at any income status - whether high or middle or low income level. According to the type of materials used, the maintenance cost involves 2.5 to 5 percent of the capital cost of the house. Since the slum and squatter inhabitants belong to lower-income strata, ^{and they} /in general/ have kutcha houses they have the maintenance of cost could be high at 10 percent. It is more often difficult for them to hire labour and skills to repair the house. Further, being at the mercy of the rainfall or heat or cold in kutcha houses, the ^{painful} urgency for repairing becomes a high priority; only alternative left to them is to put their own faculty of labour and some help of a friend-artisan, if available, for semi-technical advice. Consequently, it has been found that 829 households (or 82.9 percent out, of a total of 1000 sample households): 652 slum-households and 177 squatter households have to engage themselves - whether they are tenants or owners; and only 171 (or 17.1 percent) - 148 slum-dwellers (14.8 percent) and 23 squatter (11.5 percent) inhabitants get the advantage from their tenements.

(For details refer to

Table 5.13)

Table 5.13: How and by whom the Slum and Squatter houses are repaired in Kanpur city.

Repairs done by	No. of slum houses (1)	No. of squatter houses (2)	Total (4)
I. Self	652 (81.50)	177 (87.50)	829 (82.90)
II. Landlord	148 (18.50)	23 (11.50)	171 (17.10)
III. Total	800 (100.00)	200 (100.00)	1000 (100.00)

Note: Figures within brackets indicate percentages.

residential uses, on the whole was 83 percent - with variations being 84.8 percent in slums and 76 percent in squatter colonies; for 'residence-cum-commercial' on the whole 15.4 but in slum areas 14 percent and 21 percent in squatter areas; however, the proportion for the 'residence-cum-industrial' use was 0.5% both at macro and two specific micro levels. However, the proportions of the use for purely 'commercial purposes' was 0.8 percent, in slums; 2.5 percent in squatters area; and on the whole, 1.1 percent. The lower proportion for 'residential' purposes in squatter settlements as compared to slum settlements and higher proportion for 'residential-cum-commercial' and 'commercial' purposes was due to compulsions in the 'squatter areas' (which are generally situated on the fringes of the city and usually not within the city or in the central parts of the city) which demanded availability of commercial 'goods' and 'services' to meet particularly the daily needs ~~nearby~~ or within the localities concerned. (For details Table 5-1)

Table-5.14: Use to which the buildings (or census Houses) are put in the Slum and Squatter Areas in Kanpur city (in 1976)

Type of Houses	Slum Area	Squatter Area	Total
I. Residential	678 (84.8)	152 (76.0)	830 (83.0)
II. Residential-cum-commercial	112 (14.0)	42 (21.0)	154 (15.4)
III . Residential-cum-Industrial	4 (0.5)	1 (0.5)	5 (0.5)
IV. Commercial	6 (0.8)	5 (2.5)	11 (1.1)
V. Total	800 (100.00)	200 (100.00)	1000 (100.00)

Note: Figures within brackets indicate percentages vertically.

ii) Roads 5.25 The provision of kutchha/pucca roads perform the arteries in a residential colony - as also in business districts and industrial areas or office complexes. The roads enable the ease or comfort or facility for the movements of the pedestrains,

bicycles, rickshaws, ekka, tonga, scooters, three-wheelers, cars, buses, trucks etc.-depending upon the quality of the road surfaces and the width. In slum and squatter areas the roads/lanes, in general are ^{of} poor quality - and many a times even on their peripheries. Existence of the 'pucca' roads as an infrastructure which goes a long way in lubricating the peoples' activities and economic activities of the area. Presence of 'kutcha' roads - though helpful in some way; quite often it comes as a nuisance for the flow of water during rainy season-making cess pools -engendering growth of adverse elements for the development/health and cleanliness; makes children and their clothes dirty-full of dust - when they use the 'kutcha' roads and lanes as play-grounds as no playgrounds or any big area suitable for playing is available.

5.26 In the slum and squatter colonies, in Kanpur city, 'kutcha' roads serve 864 (or 86.4 percent) of the 1000 sample households, 'very near the house'; 75 (or 7.5 percent), at a distance 'upto 30 metres from the house'; 35 (3.5 percent), at a distance range of 31-60 metres; 17 (or 1.7 percent), at a distance range of 61-100 metres; and 9 (or 0.9 percent), at a distance of 'more than 100 metres'. In the specific areas, of the slums and also the squatter - the proportional distribution of the houses for distance ranges is by and large, approximately the same (See Table 6.15).

5.27 In regard to 'pucca' roads, 260 houses (or 26 percent) are 'very near the pucca road'; 447 (or 44.7 percent) houses, are upto a distance of 30 metres; 163 (or 16.3 percent) houses, are in the distance range of 31-60 metres; 60 (or 6.0 percent) houses, are in the distance range of 61-100 metres; and 70 (or 7 percent) houses, are at a distance of more than 100 metres. However, in the proportional distribution of houses separately for the slum houses and squatter houses in relation to 'pucca' roads distances differences exist; for example, the percentages of houses having 'pucca road very near the house', are 24.3 percent for slum houses and 33 percent for squatter houses;

45.6 percent and 41.0 percent, for houses 'upto 30 metres' distance; 16.8 percent and 14.5 percent, for houses at '31-60 metres' distance; 6.2 percent and 5 percent for houses at '61-100 metres' distance; and 7.1 percent and 6.5 percent for houses at 'more than 100 metres'. In smaller sized slums and squatters of Group-I, Group II, III aggregate percentages of houses 'near the house', 'upto 30 metres' and '31-60 metres' distance from pucca road, the squatters lead over the slums, but later on, in Group IV and V^{of} the slums, lead over the squatters. (See Table 5.15).

5.28 In respect of 'Electrified Roads', the percentages of the 'pucca roads' almost agree or very near the for all the five groups (Group I-V) though with a minus point for Electrified Roads both as regards the combined data of slums and squatters houses as well as individually for the slum houses and squatter houses (See columns 3 and 4, 6 and 7, and 9 and 10 about slums. Squatters, and slums plus squatters. (For details see Table 5.15)

Table 5.15: Slums and Squatter Houses and their Distances from Kutchha, Pucca and Electrified Roads in Kanpur City (in 1960)

Group No.	Distance from the Houses	Slum House			Squatters Houses			Grand Total of slums/squatter		
		Kutchha Roads	Pucca Roads	Elec-tri-field Road	Kutchha Roads	Pucca Roads	Elec-tri-field Roads	Kutchha Roads	Pucca Roads	Elec-tri-field Roads
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
I. Very near to the house	690 (86.2)	194 (24.3)	192 (24.0)	174 (87.0)	66 (33.0)	59 (29.5)	864 (86.4)	260 (26.0)	251 (25.1)	
II. Upto 30 metres	60 (7.6)	365 (45.6)	377 (47.1)	15 (7.5)	82 (41.0)	91 (45.5)	75 (7.5)	44 (44.7)	468 (46.8)	
III. 31-60 "	29 (3.6)	134 (16.8)	128 (16.0)	6 (3.0)	29 (14.5)	17 (13.5)	35 (3.5)	163 (16.3)	155 (15.5)	
IV. 61-100 "	13 (1.6)	50 (6.2)	50 (6.3)	4 (2.0)	10 (5.0)	6 (3.0)	17 (1.7)	60 (6.0)	56 (5.6)	
V. More than 100 "	8 (1.0)	57 (7.1)	53 (6.6)	1 (0.5)	13 (6.5)	17 (8.5)	9 (0.9)	70 (7.0)	70 (7.0)	
Total	<u>800</u> <u>(100.00)</u>	<u>800</u> <u>(100.00)</u>	<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>	

Note: Figures within brackets indicate percentage distribution vertically.

5.29 In residential/non-residential areas, the provision of drains for the flow of water during rainy season, and for the outflow of used and waste water is essential, to protect the houses and walls getting affected adversely due to water-blocks (in the absence of the drains) and also to prevent the development of insanitary conditions. The outflow facilities of night soil as also ^{of} various wastes through a well-built sewerage is a 'must'; and in this direction any apathy on the part of the local government, develops, a volcano of pollution not only in the residential colonies but also in the neighbourhood. The state of affairs that existed in slum areas of Kanpur city upto mid-1950's and thereafter has been described earlier in Chapters II and III. However, fresh look for the mid-1970's is essential to overview the situation that prevailed in 1976.

(xiv)
Drains

5.30 Drains in existence in Kanpur's slums and squatter colonies are of two types - 'kutcha' and 'pucca'. The former type cover '50 percent ^{of the households and are} very near the house', whereas 'pucca' drains are more at a distance 'upto 30 metres and above' serving about 70 percent of the houses.

Almost similar proportional distribution emerges ^{slum} in _{slum} squatter colonies.

Therefore, the overall proportional percentages are also almost the same for the combined picture of slums and squatter colonies taken together. Whatever differences that come up relate to group II (upto '30 metres distance from houses') that is, 43.5 percent for 'pucca' drains in slums; 38% for pucca drains in squatter colonies; and 42.4 percent, for the combined total of slums and squatters settlements together (See Table-5.16).

Table 5.16: Slums and Squatters Houses and their Distances from 'Kutcha' and Pucca Drains in Kanpur (in 1976)

Distance from Houses	In slums Drains		In Squatters		In Total of Slums plus Squatters	
	Kutcha (1)	Pucca (2)	(4)	(5)	(6)	(7)
I. Very near the house	401 (50.1)	236 (29.6)	102 (51.0)	58 (29.0)	503 (50.3)	294 (29.4)
II upto 30 metres "	176 (22.0)	348 (43.5)	40 (20.0)	76 (38.0)	216 (21.6)	424 (42.4)
III .31-60 "	100 (12.5)	122 (15.3)	37 (18.5)	33 (16.5)	137 (13.7)	155 (15.5)
IV.61-100 "	56 (7.0)	46 (5.7)	19 (9.5)	10 (5.0)	75 (7.5)	56 (5.6)
V.100 & more "	67 (7.0)	48 (5.9)	2 (1.0)	23 (11.5)	69 (6.9)	61 (6.1)
Total	800 (100.00)	800 (100.00)	200 (100.00)	200 (100.00)	1000 (100.00)	1000 (100.00)

Note:

xv)
Sewerage

5.31 Out of 1000 sample of slum and squatter households 581 houses do not have the benefit of sewerage services; and 419 houses have of the services of the sewerage system. Out of the 41.9 percent, who have the privilege of these services - 14.7 percent have the sewerage 'very near the house'; 12.8 percent, 'upto 30 metres distance from the house'; 9.4 percent, between 'a distance of 31-60 metres'; 3 percent, between 'a distance of 61-100 metres; and 2 percent at a distance of 'more than 100 metres. In case of 800 sample slum residents, the situation is that 348 houses (or 43.6 percent) have sewerage services, but 452 houses (or 56.4 percent) do not have the facility. Out of 43.6 percent beneficiaries, 13.4 percent have the benefit 'very near the house'; 14.4 percent, upto a 'distance of 30 metres'; 10.8 percent, upto 'distance of 31-60 metres'; 3.3 percent, between a distance of 61-100 metres; and 1.7 percent, at a distance

of more than 100 metres. Amongst 200 sample squatter households, 129 (or 64.5 percent) have 'no' benefit of sewerage system and 71 (or 35.5 percent) enjoy the benefit. Again, out of 35.5 percent beneficiary squatter houses, 20 percent, have the sewerage 'very near the house'; 6.5 percent, 'upto a distance of 30 metres'; 4 percent, at a 'distance of 31-60 metres; 2 percent, at a distance of 61-100 metres; and 3 percent, at a 'distance of more than 100 metres. Thus, proportionately the slum-dwellers are little better situated in regard ^{to} sewerage facilities over the squatter residents. (For details see Table 5.17)

Table 5.17: Sewerage System in Slum and Squatter Settlements in Kanpur city (in 1976)

Group (1)	Distance from House (2)	In slums (3)	In Squa- tters. (4)	Total of Slums & Squatters (5)
I. Very near the house		107 (13.4)	40 (20.0)	147 (14.7)
II. Upto 30 metres		115 (14.4)	13 (6.5)	128 (12.8)
III. 31-60 "		86 (10.8)	8 (4.0)	94 (9.4)
IV. 61-100 "		26 (3.3)	4 (2.0)	30 (3.0)
V. 100 & more"		14 (1.7)	6 (3.0)	20 (2.0)
VI. No sewerage		452 (56.4)	129 (64.5)	581 (58.1)
Total		800 (100.00)	200 (100.00)	1000. (100.00)

(xvi)

Water Supply

5.32 The survey in regard to water supply facility made a guideline an incorporating groups of households getting water-supply (i) within the house/house premises; (ii) upto a distance of 30 metres; (iii) upto a distance between 31-60 metres; (iv) a distance between 61-100 metres; and (v) a distance over 100 metres. The guideline was drawn from the provisions made in Kanpur ³⁾ Shata Bye-laws

3) Refer to Para 2.24.

as well as the United Nations Indicators for the Housing Levels of Living - as discussed under Chapter-II 4).

5.35 An analysis of the sample data as given under Table 6.18, gives some interesting results. Firstly, it comes out that out of 1000 slum and squatter sample households, 18.1 percent had supply of water within the premises of the residences either from tap or hand-pump or well; 50.7 percent, from a distance of upto 30 metres; 14.4 percent, from a distance of 31-60 metres; 8.8 percent, from a distance of 61-100 metres; and 8 percent, from a distance of more than 100 metres. In case of the slum households (numbering 800 in the sample of 1000 households), it was found that 167- (or about 21 percent) slum-households had tap or hand-pump or well within their residences; the remaining 79 percent had to carry the water from outside: 52 percent, from a distance of upto 30 metres; 14.3 percent, from a distance between 31-60 metres; 6.9 percent, from a distance of 61-100 meters; and 5.8 percent, from a distance of 100 meters and over. On the other hand squatter households (200 in the sample of 1000 households), it came out that only 7 percent, had water supply within the residential premises either through tap or hand-pump or well; 44.5 percent, upto a distance of 30 meters; 15 percent, from a distance between 31-60 metres; and 17 percent from a distance of '100 meters and over'.

5.34 Relatively the slum-dwellers were better situated than the squatter in regard to water-supply; firstly, because slum-dwellers are old dwellers and staying in legalized Ahatas - where density per acre is also higher and overcrowding in rooms is also probably higher; secondly, the squatter households are by and large living on unauthorised land which is often outside the purview of the city corporation- their's is more a sprawl extensively in ribbon-settlements on the road side or railway lines with less density of population per acre and less room density and the squatters are relatively new

Refer to

4) Para 2.35 about Basic Indicators No.3 (or B₃)

new dwellers in and around the Kanpur city - who have to mark time before they can have a sustained place or location for living; they are under lurking threat of being evicted (if not bulldozed) any time.

Table 5.18: Classified Distribution of 1000 sample Slum and Squatter Households according to using any one of the three sources of Water Supply (Tap/Hand Pump/Well) in Kanpur (in 1976)

Household Ranges in settlements.	No. of persons using one source of water	Upto 10	11-20	21-30	31-50	51-100	Above 190	Sub-Totals	Total
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I. Upto 50 H.H.									
Slums "	39	22	31	56	18	147	313	407	
Squatters "	7	4	8	16	6	53	94	(40.70)	
II. 51-100									
Slums "	15	3	10	30	59	38	155	175	
Squatters "	1	1	2	5	5	6	20	(17.50)	
III. 101-200									
Slums "	8	1	5	8	23	70	115	137	
Squatters "	0	1	1	4	4	12	22	(13.70)	
IV. 201-500									
Slums "	2	1	2	4	8	67	48	118	
Squatters "	0	0	0	4	0	31	35	(11.90)	
V. 501-1000									
Slums "	3	1	0	3	8	31	46	61	
Squatters "	0	1	0	0	4	10	15	(6.10)	
VI. Above 1000									
Slums "	3	4	4	2	12	62	87	101	
Squatters "	1	0	0	1	1	11	14	(10.10)	
Sub-Totals									
Slums	70	32	52	103	126	415	800		
	(8.70)	(4.00)	(6.50)	(12.90)	(16.00)	(51.50)	(100.00)		
Squatter	9	7	11	30	20	123	200		
	(4.50)	(3.50)	(5.50)	(15.00)	(10.00)	(61.50)	(100.00)		
Total	79	39	63	133	148	538	1000	1000	
	(7.90)	(3.90)	(6.30)	(13.30)	(14.80)	(53.80)	(100.00)	(100.00)	

Note: Figures within brackets convey percentage distribution.

5.35 One point that sticks on is that nearly four fifths of the slum and squatter households do not have supply of water in or within their residential premises; and only one-fifth have supply of water. But it is important to know that how households get potable (or hygienic) water supply. It is found that about 28.4 percent of the 1000 slum and squatter households have the water supply from taps; in addition, some of them use the hand-pumps as well. It is thus clear that 71.6 percent of the slum and squatter households in Kanpur city do not have the facility of hygienic (or potable water supply). In mid-1950's, in Kanpur city, as a whole, 35.12 percent of the households did not have water supply through tap; and 37 percent of the households had a pressure of 6 -10 households or more', on the service of one tap only. Whereas, in mid-1970's (that is 20 years' after) the situation in slums and squatter areas is still worse than what was in the city as a whole twenty years before. The distances of the water-supply resources for the four-fifths of the households range much ahead of the maximum allowable distance of 200 ft. under the State Bye-Laws and more than 100 yds. prescribed under the U.N. Indicators of potable water supply.

Table-5.19: Supply of Potable Water through taps in the Slum and Squatter Settlements in Kanpur city for 284 houses only out of a sample of 1000 houses.

Sl. No.	Distance from the house (in mts)	Slums (No.)	in Squatter area (No.)	Total (No.)
(1)	(2)	(3)	(4)	(5)
I . in the house		22	8	30 (10.50)
II . within 30 Metres	66		128	194 (68.00)
III . 31-60	"	8	8	16 (5.50)
IV . 61-100	"	4	28	32 (11.00)
V . Above 100	"	4	8	12 (4.00)
VI . Total		104 (36.2)	180 (63.8)	284 (100.00)

Note: Figures within brackets indicate percentage distribution both horizontally and vertically.

Table - 5.19

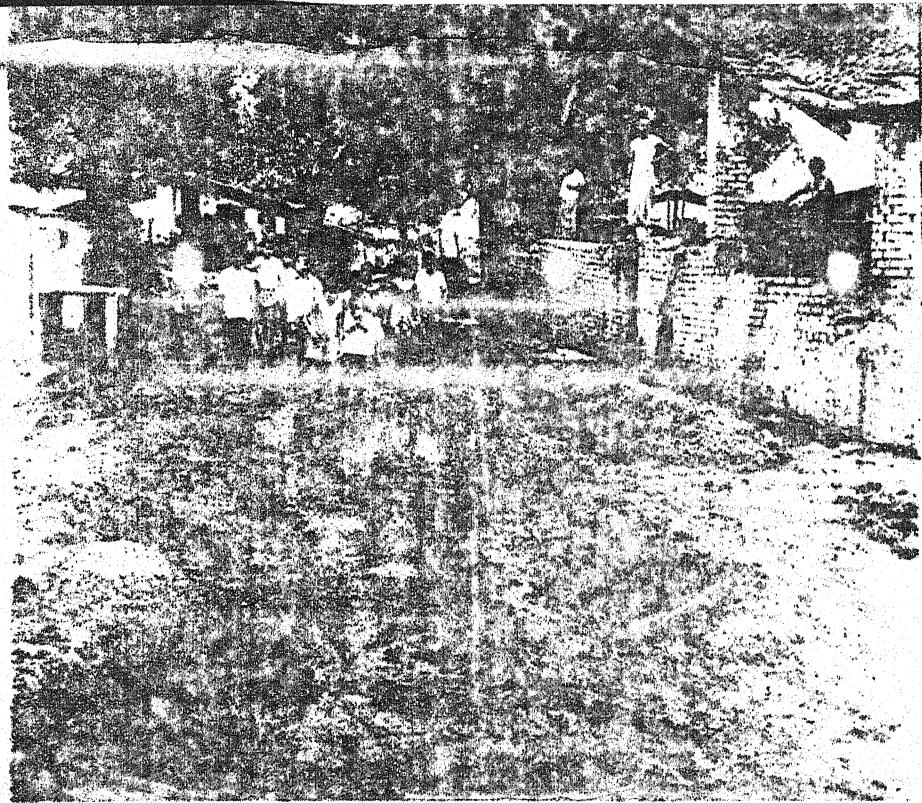


PHOTO PLATE NO
SL.3

SL-3

Water-supply from well drawn by bucket and rope, filth-cum-garbage along with playing ground in a slum area of Khalasi Lane (in Kannur)

SL-4

Water-supply from Public Tap, washing, open bathing, cleaning of dishes, child-vendor un-cemented brick-walls in slum area of Patalganj

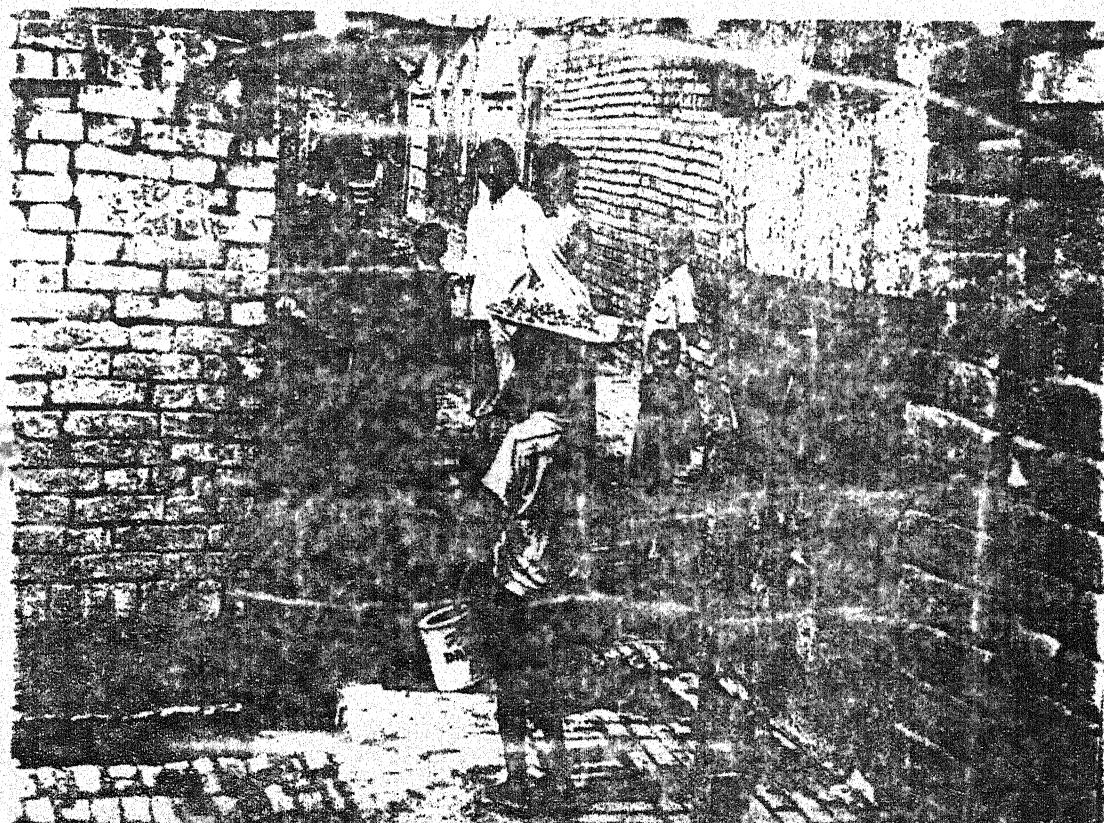


PHOTO PLATE NO
SL.4



5.36 A further analysis of water supply through 'tap' is crucial and meaningful in respect of distances of 'taps' from the dwellings of the slum and squatter households. It can be seen that out of 284 households having 'tap' water supply; 180 (or 63.80 percent) are from squatter households and 104 (13 percent) are from the slum-dwellers. In essence, 180 squatter households represent 90 percent of the total sample of 200 and only about 104 slum households, (only 13 percent) of the total sample of 800 slum households. Thus it is the slum dwellers who are poorly off from the advantage of the supply of water from taps as compared to squatter households. Again, 30 (or 10.5 percent of the total of 284 slum and squatter households) have supply of water from taps; 194 (or 68 percent), from a distance within 30 m., 16 (or 5.5 percent), from a distance between 31-60 m.; 32 (or 11 percent) from a distance between 61-100 m; and 12 (or 4 percent), from a distance of '100 m. or more'.

(xvii) Environmental Improvements under Minimum Needs Programme

5.37 To ease the situation through environment improvements expenditure ending December 31, 1974 (relating to community and essential services) under the last phases of the Fourth Plan and in the Fifth Draft (and Final) Plan, a scheme of Environment Improvement of Slums under the Minimum Needs Programme, was of the order of Rs.14.1 million⁵⁾ in Kanpur of which the expenditure incurred on water mains (i.e.-supply of potable water) in the slum areas was Rs.0.357 million covering the 20,980 R.M. Probably, of late, this operation might have accelerated during 1975 and 1976; however, in the absence of data it is not possible to make any observation though it is known that for the financial year 1975-76 Rs.10 lakhs were to be spent for the basic amenities in Juhu-Bara Devi and Usmanpur localities. The water-supply services can be analysed according to the density pressure of less than 10 persons on one particular source of water as shown in Table -5.19. From the data it turns out that in size Group-I

5) The area covered were: Harjendra Nagar, Juhi Baburiya, Pratapganj, Omprava and Pokarpurva, Kakadeo, Thakanpurwa, Shujatganj, Babupurva, Muzaffarpur - intended to benefit a population of about 158,000 in these localities.

there are 46 households who draw water from one source—whether tap/hand-pump/well and the pressure per unit of the source is less than persons in Group-II, from 16 households; in Group III from 8 households; in Group IV, from 2 households; in Group V, from 3 households and Group VI, from 3 households. A density pressure between 11-20 persons on one particular source of water supply in respect of Group I is from 26 households; and in Groups II, III, IV, V and VI from 4 or less households. A density pressure of 21-30 persons on one source of water supply is from 31 households, in Group I; from 10 households in Group II, and from 5 or less households in Groups III, IV, V and VI. A density pressure of 31-50 persons on one source of water is from 56 households of Group I; from 30 households, of Group II; from 4 households, of Group III; and from between 2-4 households of Groups IV, V and VI. Again, a density pressure of 51-100 persons on one source of water is from 18 households, of Group I; 59 households, of Group II; 23 households, of Group III; 8 households each, of Groups IV and V; and 12 households of Group VI. A density pressure of 'above 100 persons' on one source of water is from 200 households of Group I; 175 households, of Group II; 137 households, of Group-III; 119 households, of Group IV; 61 households, of Group V; and 101 households, of Group VI.

5.38 Finally, it emerges that from 538 households (or 53.8 percent): 415 slum households (51.9 percent); and 123 squatter households (61.5 percent), using any one of the three water supply systems created pressure of '100 persons or more' on one unit of the source; 148 households (or 14.8 percent) caused 118 (16 percent) slum households; and 20(10 percent) squatter households caused a pressure of 51-100 persons per unit of water supply system; 133 (or 13.3 percent); 103 slum households (12.9 percent); and 30 squatter households (15 percent) caused a density of 31-50 persons of per unit of water supply system; 63 (or 6.3 percent); 52 slum households

(6.5 percent); and 11 squatter households (5.5 percent) created a 'density of 21-30 persons' per unit of water supply system; 39 households (or 3.9 percent); 32 slum households (4 percent) and 7 squatter households (3.50 percent) introduced a 'density of 11.20 persons' per unit of water supply system; and 79 households (or 7.9 percent); 70 slum households (8.7 percent); and 9 squatter households (4.5 percent) caused a density of 'upto 10 persons' per unit of water supply system conclusively, it follows that in proportional terms 61.5 percent of the squatter households had reliance on a water supply system where density is more than '100 persons' per unit as compared to 51.9 percent of slum households.

5.39 Further both for slum and squatter households the proportion of the households suffering from heavy density is varying in a direct proportion to the number of households - that is more households suffered from high density on any one unit of the three water supply systems. Also, the crowding/pressure was associated inversely with the size of the Ahatas - larger the ahata size in terms of number of households, lesser the pressure on water sources, and smaller the ahata size, more the pressure on the water sources. Further, it is averred that spontaneously, the pressure would have been more on 'tap' as it would command more households because of the higher quality of water supply -immune from risks of a series of infections and diseases. (Refer to Table 5.19).

(xviii)
Bath-
rooms

5.40 'Bath-rooms' availability within or near the house-for bathing/washing clothes with facility of privacy is of essential value for maintaining cleanliness, personal hygiene and warding off the collection of dust and dirt. In slum and squatter settlements, the scarcity or absence of bathing facility is a miserable lacunae which inhibits good health. In Kanpur's slums and squatter settlements 698 houses/households (or 69.8 percent) do not have at all the bathing facilities, either in or near the house or upto a distance of more than

100 sq.metres. They are compelled to forego bathing and washing and might walk (if, time permits) to other neighbourhood or to the public stand-pipe - open to all or negotiate from home or factory to the Ganges and back home or straight over to work place. This is tragic. However, in slums and squatters' households ^{numbering} in all 302 (236 in slums and 66 in squatters which have bath-room conveniences as follows:-(i) very near the house, for 79 slum households and 10 squatter households; (2) upto a distance of 30 metres, for 90 slum households and 26 squatters; (3) upto 31-60 metres, for 52 slum households and 60 squatters; (4) upto 61-100 metres, for 10 slum households and 6 squatter; and (5) at a distance of more than 100 metres, for 5 slum-households and 16 squatters. It is of interest that squatter households are a little ^{better} placed in regard to bath-room facilities over slum-households. Of the 31.2 percent of households who have the bath-room conveniences ^{to} ~~are nearer~~ ^{manageable distances}, the best frequency is at a distance 'upto 30 metres' for 30 slum households (or 11.3 percent) and 26 squatter households (13 percent) followed by 'very near the house', for 9.9 percent slum households and 8.9 percent for the combined proportion of slum and squatter households (For details see Table 5.20.).

Table 5.20: Bathrooms/bathing facilities in the Slum and Squatter Settlements in Kanpur city
(in 1976)

Size of settlements (in no. of houses)	Distance in metres from the House	No. of House olds in Slums						Total
		Upto 30 Mts.	31 to 60 Mts.	61 to 100 Mts.	Above 100 Mts.	Arran gements in or outside of the house	Some	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
I. Upto 50	43	47	14	1	1	207	313	
II. 51-100	13	10	12	5	0	115	155	(39.1)
III. 101-200	11	10	11	1	2	80	115	(19.4)
IV. 201-500	7	8	4	2	-	63	84	(14.4)
V. 501-1000	3	2	5	-	-	36	41	(10.4)
VI. Above 100	2	13	6	1	2	63	87	(5.8)
VII. Sub-Total of Slums	79 (9.9)	90 (11.3)	52 (6.5)	10 (1.3)	5 (0.6)	564 (70.4)	800 (100.00)	
I. Upto-50	3	9	5	5	11	61	94	
II. 51-100	1	2	1	-	1	15	20	(47.0)
III. 101-200	3	-	-	1	-	18	20	(10.0)
IV. 201-500	1	13	1	-	-	20	35	(10.0)
V. 501-1000	-	2	1	-	4	8	15	(17.5)
VI. Above 1000	2	-	-	-	-	12	14	(7.5)
VII. Sub-Total of Slums	10 (5.0)	26 (13.0)	8 (4.0)	6 (3.0)	16 (8.0)	134 (67.0)	200 (100.00)	
Grand Total of Slums and Squatters	89 (8.9)	116 (11.6)	60 (6.0)	16 (1.6)	21 (2.1)	698 (69.8)	1000 (100.00)	

Note: Figures within brackets indicate the percentage distribution both horizontally and vertically.

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(xix) Disposal of Garbage

5.41 The disposal of day's left-outs, wastes, etc. (called 'garbage') needs daily cleansing and disposal away from human habitations, any delay or negligence in disposing of the various garbage creates breeding of mosquitoes, and sets in motion / types / nauseating odour and suffocating gases. Regular clearance is the best solution; occasional clearance, not very safe; and no clearance, is fraught with release and increase of disease, environmental pollution, and consequent ^{high} bad health, death rates and infantile mortality within the colonies. It was only for 34.8 percent of the houses that the clearance of garbage was done regularly - but the specific proportions in the slums and squatter area were 37.2 percent and 25 percent respectively; 27.5 percent of the houses, had occasional clearance; but specific proportions in slums and squatter areas were respectively 28.5 percent and 23.5 percent respectively; and the houses from which 'no clearance' was the rule, represented a proportion of 37.7 percent (the highest percentage at the macro-level) - but the specific proportions of the slums and squatter settlements were 34.3 percent and 51.5 percent. Thus, the general situation for the 'clearance of garbage' was miserable - it was worse in squatter houses where more than half of the houses did not have any service for the garbage disposal - where it were nearly one-third of the houses which did not have the benefit of garbage disposal. The underlying circumstance for poor attendance in squatter area perhaps was its unauthorised status in the eyes of local governments. (For details see Table 5.21)

Table-5.21: Status regarding the frequencies in 'Garbage' Disposal from Slum and Squatter Areas in Kanpur City (in 1976)

Sl. No.	How serviced	in Slums houses	in Squatter Houses	Total
I.	Regular clearing	298 (37.2)	50 (25.0)	348 (34.8)
II.	Occasional "	228 (28.5)	47 (23.5)	275 (27.5)
III.	No "	274 (34.3)	103 (51.5)	377 (37.7)
IV.	Total	800 (100.00)	200 (100.00)	1000 (100.00)

Note: Figures within brackets show percentages vertically.

5.42 Need for conservancy services of latrines, urinals, pail depots etc. is important for the health of the citizens. In slum and squatter settlements, the problem assumes obnoxious proportions - and more so in the slum areas of Kanpur partly due to absence or scarcity of pail depots and lack of civic education to the slum population as also small employment of scavengers and sweepers and time-worn system carrying the night-soil in open pans on their heads. To escape from the effort of travel a distance from the house to the public pail depots the people have cultivated the habit of discharging night-soil in open drains and gully-pits including by the side of railway lines. According to the survey carried out, it emerged that 34.1 percent of slum and squatter households even presently go out at a distance of more than 100 metres - the proportion amongst squatter households rises to almost 50 percent. It is only less than one-fifth of the total 1000 households, who have latrine in the house (or premises) - but squatters proportion in this regard is very low at one-fourteenth (or 7 percent). Further, 25 percent of the slum household have latrine 'upto a distances of 30 metres'; 15.4 percent, at a 'distance of 31-60 metres'; and 6.6 percent, at a distance between 61-100 metres. Whereas for the squatter households at the foregoing distance dimensions, proportions are correspondingly 15.5 percent, 13.5 percent, and 14.5 percent. All these data suggest that squatters were not well-placed in regard to distances of latrines in the house premises or in respect of distances from their houses. (For details see Table 5.22)

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Sanitary Facilities 5.43 Further, in regard to the burden or pressure on one latrine, of the persons using it and their emanating from certain number of households, the data show that, the average number persons were 'upto 10' - and this related to 146 (or 14.6 percent) slum and squatter households - the specific number of slum households being 131 and that of squatters, 15.

Table 5.22: Distance of the Latrines from the House
and the Number of Persons using one unit
of latrine

Distance	Slum's Households	Squatters' Households	Total
(1)	(2)	(3)	(4)
In the house	182 (22.80)	14 (7.00)	196 (19.60)
Upto 30 mts.	200 (25.00)	31 (15.50)	231 (23.10)
31-50 "	123 (15.40)	27 (13.50)	150 (15.00)
61-100 "	53 (6.60)	29 (4.50)	82 (8.20)
More than 100 "	242 (30.20)	99 (49.50)	341 (34.10)
Total	800 (100.00)	200 (100.00)	1000 (100.00)

The pressure of 10-20 persons per latrine related to 32 households (or 3.2 percent): 30 slum households and 2 squatters; it was 21-30 persons, relating to 39 households (or 3.9 percent): 33 in slums and 6 in the squatters; 31-50 persons, in regard to 73 households (or 9.7 percent): 83 in slums and 14 in squatters; above 100 persons, as regards to 237 households (or 23.7 percent): 199 slum households and 38 squatter households. But 376 (or 37.6 percent) of the households (266 in slums and 110 in squatters) who did not have the facility of latrine(s) and they were 'going out' - with sky over their head. Incidentally it follows that one-third of the slum households and 55 percent of the squatter households did not have latrine facilities - therefore, squatters were badly off in relation to the provision of latrines near or at a distance beyond 100 metres (See details in Table 5.23)

Table-5.23: Classification of number of Persons using a Latrine and Households served according to group classification in Kanpur City
(in 1976)

No. of Persons using one latrine	Slums House-holds	Squatter Households	Total
			(4)
Upto 10 persons	131 (16.40)	15 (7.50)	146 (14.60)
11-20 "	30 (3.80)	2 (1.00)	32 (3.20)
21-30 "	33 (4.10)	6 (3.00)	39 (3.90)
31-50 "	58 (7.30)	15 (7.50)	73 (7.30)
51-100 "	83 (10.30)	14 (7.00)	97 (9.70)
above 100 "	199 (24.70)	38 (19.00)	237 (23.70)
Going out "	266 (33.4)	110 (55.00)	376 (37.60)
<u>Total</u>	<u>800 (100.00)</u>	<u>200 (100.00)</u>	<u>1000 (100.00)</u>

S U M M A R Y

In regard to housing conditions (including overcrowding) in native places, the slum - dwellers were better off at the time of migration vis-a-vis squatter-dwellers. However in regard to housing conditions the squatter-dwellers were relatively placed better - in Kanpur primarily due to 'no capital cost for land' to be incurred for 'unauthorised land'. No doubt, the house-designs for the dwellers were 'uneconomic', in both the settlements, since only about 50 percent of the designs were side-by-side (or in a row) (Paras 5.01-5.05).

The smaller households had lesser living space and bigger households larger space - broadly, both for the slum and squatter households. Again, larger proportion of squatter households lived in one-room houses and a larger proportion of slum households lived in more than 3-room houses (See paras 5.06-5.07). But, in essence, the average density of households per room was higher (at 1.87), in case of slum-rooms; and 1.55 households, in case of squatter rooms - primarily, the higher burden ensuing from the bigger household - sizes in slums formed 45.1 percent of 800 sample households - as against 27 percent of the 200 squatter households. (Para 5.08)

Doors and windows per room (or a house) are poorly fixed - and in all such situation, adversely affects the health, productivity, income, welfare etc. including the poor inputs of education and literacy. In all probability, about two-thirds of the squatter households and 55 percent of the slum households while missing the facility of door/window, can be likened to a group of population who miss two or three meals out of the four meals. (Paras 5.07-5.10).

Absence of sanitary facility, presence of water logging etc. are suffered by two-thirds of the slum-dwellers and three-fourths of the squatter households; they also live in houses with animal population -this however, affects about one-sixth of the 1000 sample slum and squatter households (Paras 5.12-5.13).

As regards, the rent payments remitted by the tenant-residents the analysis is done according to five rent ranges: (i) 'Nil' rent; (2) upto Rs.5/-; (3) Rs.6-10; (4) Rs.11-20; and (5) Rs.20 and over. Those who did not pay rent were 34.3 percent because 22.7 percent owned houses and 11.6 percent lived in rent-free houses; 15.6 percent paid upto Rs.5 per month; 21.2 percent, paid Rs.6-10 p.m.; 19.10 percent, Rs.11-20 p.m. and 9.8 percent, Rs.20 and over. A point is that 77.9 percent were rent-paying households among slum-dwellers;

only 17 percent among squatter households. 275 (or 27.5 percent) of households kept co-tenants or sub-tenants: 238 by slum households and 37 by squatter households. Repair responsibility of the houses is that of the tenants/owners themselves in case of 829 households and in case of 171 houses that of land-lords. Some houses (about 83%) are purely for residential uses; 15.4%, for residential-cum-commercial purposes; 1.1 percent, for commercial uses; and only 0.5%, for residential-cum-industrial uses (Paras 5.14-5.24).

'Kutcha' roads, serve 86.4 of households; and 'pucca' roads 26 percent of households. However, 33 percent of squatter households are served by 'pucca' roads - though 87 percent are served by 'kutcha' roads. The proportion of the services of kutcha or pucca roads in regard to slum and squatter households nonetheless, vary according to distances from the houses. Drains' services are also have 'kutcha' and 'pucca' construction; and broadly 50 percent households are served by 'kutcha' drains and the other 29 percent by 'pucca' drains and about 20 percent do not have drains. So also in regard 'sewerage' services. 581 (or 58.1%) households, have the facility; 14.7 percent, very near the house; 12.8 percent, 'upto a distance of 30 meters'; 9.4 percent, 'at a distance of 31-60 meters'; 3 percent, at a distance of 61-100 meters; and 2 percent, at a distance of '101 meters and more'. Water supply is available either by water tap, well or tube-well; only 28.4 percent get water through tap - though the number of slum households is only 13 percent but that of squatters, 90 percent. Rest of the households avail water-supply through wells/tube-wells which is not quite healthy. Under the Environmental Improvements of Slums Programme, which commenced in the Fourth Plan in Kanpur, expenditure of Rs.14.1 million was incurred upto the end of December 1974 of which on water-mains was of Rs.0.357 million and for 1975 and 1976 a provision was made of Rs.1 million. However, the pressure on each of the sources of water-supply was very high - in some cases pressure was of more than '100 and more' persons and this relates to 538 households; 415 slum households and 123 squatter households. Bath-room facilities were available to 8.9 percent out of the 1000 households in the house or house premises; 11.6 percent, had at a distance of 'upto 30 meters'; 6 percent, between 31-60 meters; 1.6 percent, between 61-100 meters; and 2.1 'above 100 meters' and about 69.8 percent, having miscellaneous arrangements at different distances. Latrines were in the house or in premises in case of 19.6 percent, for 23.1 percent, at a distance of upto 30 meters; for 15 percent, at a distance of 31-60 meters; for 8.2 percent at a distance of 61-100 meters, and for 34.1 percent

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at a distance of more than 100 meters. Further, the pressure on latrine was of 'upto 10 persons' affecting 146 households; of 11-20 persons, affecting 32 households; of 21-30 persons, affecting 39 households; of 31-50 persons, affecting 73 households; of 51-100 persons, affecting 97 households; above 100 persons, affecting 237 households; and rest of the 376 (or 37.6 percent) have to get to longer distances to meet Nature's call. (Paras 5.25-5.41).

Chapter-VI: Income Levels of the Slum and Squatter Households, their average sizes, per capita incomes etc. in Kanpur city.

6.01 In an already referred study done by Prof.D.N. Majumdar during mid-1950's of Kanpur city, the analysis of levels of living of 4,914 migrant/non-migrant families presented a picture which showed that there was no response by about 5 percent; 22.7 percent, had a monthly income 'below Rs.50'; 37.99 percent, between Rs.51-100; 18.75 percent, Rs.101-200; 9.31 percent, Rs.201-400; 3.32 percent between Rs.401 -1000; and 1.08 percent, over Rs.1,000. Of all the 4,914 respondents, about 30.31 percent were non-immigrants; about 30 percent, were pre-1940 migrants; and about 38 percent, post-1940 immigrants. Incidentally, it appeared that the low-income families had a smaller family size and higher income families, a larger family size; (see Table-6.01). However, in all income

Table 6.01: Family Sizes according to Income Classes of Non-Migrants and Migrants (in Kanpur in mid-1950's).

SL. No.	Income class (Rs.)	Non-Migrants	Pre-1940 Migrants	Post-1940 Migrants	Overall average of Col.3, 4 and 5
(1)	(2)	(3)	(4)	(5)	(6)
I	Below Rs.50	3.90	3.55	2.81	3.34
II	51-100	4.72	4.26	3.33	4.02
III	101-200	6.46	6.34	4.61	5.76
IV	201-400	7.43	7.08	4.91	6.28
V	401-1000	6.66	6.51	6.60	6.60
VI	Over 100	6.96	8.56	6.02	6.80
VII	All Income Groups	5.41	5.03	3.75	4.36

classes the average size of the family - amongst non-migrants was the largest; medium in case of pre-1940 migrants; and small in case of post-1940 migrants. This phenomenon is partly due to the characteristics of the migrants to leave behind some members of the family in the native place;

nonetheless the per capita incomes of small families were smaller, and for larger families higher per capita income. Again, in all income classes, per capita incomes of the non-migrants were lower - and that of migrants higher and it also turned out that the older migrants had lower per capita incomes than the new and newer migrants (except for a little aberration in case of two income classes -Rs.401-1000 and over Rs.1000.) (See Table 6.02)

Table-6.02: Income Classes, their average Family Sizes, and Per Capita incomes according to Income Classes (in Kanpur mid-1950's)

Sl. No.	Income Classes (Rs.)	Average Family Size (No.)	Overall Average	Per Capita Income		
				Non-Migrants	pre-1940 migrants	Post-1940 migrants
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I.	Below Rs.50	3.34	11.94	10.25	11.27	14.22
II.	51-100	4.02	18.65	15.87	17.62	22.52
III.	101-200	5.76	25.04	23.22	23.65	32.53
IV.	201-400	6.28	47.78	40.38	42.38	61.90
V.	401-1000	6.60	106.6	105.13	107.53	106.60
VI.	Over 1000	6.80	183.8	179.60	142.38	207.64
VII.	Total	4.36	30.8	47.25	52.25	51.88
	Average					

6.02 A summary presentation of per-capita income classes in respect of: (1) non-migrants; (2) pre-1940 migrants; and (3) post-1940 migrants is given in Table 7.03 - which indicates that in all the three cases the 'mode class' is stationed in the Class-I - absorbing 66.06 percent of the persons amongst the non-migrants; 58.72 percent, amongst pre-1940 migrants; and 47.63 percent, amongst the post-1940 migrants; and the overall proportion is 56.94 percent. In another way an inquiry ²⁾ of working population in Kanpur in 1950, found 'poverty line' at a monetary value of Rs.47.66 of per capita monthly income - the poverty line representing the costs

1) For all these analyses of this paragraph see pages 92-94 of D.N. Majumdar's Report.

2) (Dr.) Agnihotri; Factory Workers in Kanpur, 1950 (p.110).

of consumption of commodities/services in the city (including food, clothing and housing) - whereas the poverty line arrived by Dr. Majundar was Rs.50 in mid-1950; and this 'latter line' submerges about 88 percent of non-migrants; 78 percent of the pre-1940 migrants; and 70 percent of the post non-migrants.

Table - 6.03: Distribution of Non-Migrants, pre-1940 Migrants and post-1940 Migrants according per-capita Income Classes in Kanpur City around mid-1950's.

Sl. No.	Per capita income classes (Rs.)	Non- Migrants	pre-1940 Migrants	Post-1940 Migrants	Total
(1)	(2)	(3)	(4)	(5)	(6)
I . Upto Rs.30	20.38 (66.06)	15.70 (58.72)	18.79 (47.63)		<u>56.94</u>
II . 31-40	3.29 (10.66)	4.75 (15.70)	6.80 (17.24)		<u>14.84</u>
III . 41-50	1.10 (3.57)	1.02 (3.37)	1.92 (4.87)		<u>4.04</u>
IV . 51-100	2.70 (8.75)	4.48 (14.81)	9.08 (23.02)		<u>16.26</u>
V . 101-200	0.87 (2.82)	0.60 (1.98)	1.23 (3.12)		<u>2.70</u>
VI . Above 200	0.39 (1.26)	0.05 (0.17)	0.38 (0.96)		<u>0.82</u>
Not responded	2.12 (6.87)	1.59 (5.25)	1.25 (3.17)		<u>4.96</u>
Total	30.85 (100.00)	30.26 (100.00)	39.45 (100.00)		100.56

Note:- Figures within brackets in Col.3, 4 and 5 indicate percentages vertically within the corresponding.

6.03 The sample survey conducted in 1976, in Kanpur city's slum and squatter settlements, as stated earlier in Chapter-IV has a sample of 1000 households: 800 slum households, and 200 squatter households. Since the 'level of education' (as/investment in human beings) ordinarily determines the income level, it was devised to collect information on educational levels of the various members of the sample 1000 households. The total number of members, in 800 slum households, were 4,195 giving an average size of households as '5.49'; and in case of 868 members within 200 squatter household registered an

average household size of '4.34 persons'. Because squatters are usually new settlers, it is usual that all the members of the family do not migrate from the native place. Whereas in case of slum-households only a very few family members or 'nil' are left behind in the villages. Consequently, it happens that the slum households' average family size is bigger than that of the squatter households.

7.04 Out of 4,195 slum residents, 2,154 (or 50.5 percent) are illiterate; in case of 868 squatter residents, 578 (or 66.5 percent) are illiterate. Primary level education level proportions, for the slum dwellers and squatter dwellers are respectively 26.4 percent and 20.9 percent; middle level education proportions, 13.7 percent and 7.9 percent; high school education, 5.2 percent and 2.8 percent; intermediate education, 2.3 percent and 0.8 percent; graduate level education, 1.2 percent and 0.6 percent; above graduate level, 0.5 percent and 0.3; ^{and} technical or vocational qualified, or 0.2 percent both for slum and squatter dwellers. It thus follows that higher the levels of education, the proportions are lower for squatter dwellers as compared to that for slum-dwellers; whereas in regard to illiteracy level the proportion for squatters is 33.3 percent higher than that of the slum-levels. Hence, it might be that income-levels of the squatters may in general may be lower than that of the slum-dwellers - however depending on the distribution of the types of occupations they are engaged in, (see Table 6.04). It is also interesting to know High School+, Intermediate+, Graduate+, post graduate+, technically/vocationally qualified persons numbered 381 (or 9 percent) of the total population, and 48 percent of the occupied persons. Or it ^{was} one person for every two slum-households/- a boon in a metropolis - with good chances for employment in industrial and tertiary occupations. Further, of this qualified category of 381 persons - nearly 303 (or about 80 percent) were in age-group '18-45 years';

Table-6.04: Distribution of slum and squatter population according to age-groups and Educational Levels in Kanpur City (in 1976)

Education level Age Groups							Total	Percen- tage
	6-10	11-14	15-17	18-45	46-60	Over 60		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.Illiterate	658	93	78	919	293	113	2154	(50.5)
2.Primary	428	174	58	348	77	18	1103	(26.4)
3.Middle	22	142	71	289	26	4	554	(13.7)
4.High School	-	-	45	163	8	2	218	(5.2)
5.Intermediate	-	-	16	73	1	1	91	(2.3)
6.Graduate	-	-	-	38	5	-	43	(1.2)
7.above Graduate-	-	-	-	21	1	1	23	(0.5)
8.Technical/ Vocational	-	-	-	8	-	-	9	(0.2)
9.Sub-total of Slum-dwellers	1108	409	268	1859	411	140	4195	(100.00)
1.Illiterate	188	34	24	243	70	19	578	(66.5)
2.Primary	66	25	7	70	11	3	182	(20.9)
3.Middle	-	10	14	40	4	1	69	(7.9)
4.High School	-	-	1	20	2	1	24	(2.8)
5.Intermediate	-	-	1	5	-	-	6	(0.8)
6.Graduate	-	-	-	4	1	-	5	(0.6)
7.above graduate-	-	-	-	3	-	-	3	(0.3)
8.Technical/ Vocational	-	-	-	-	-	-	1	(0.2)
9.Sub-total of Squatters	254 (29.3)	69 (7.9)	47 (5.14)	386 (44.5)	88 (10.1)	24 (2.8)	868 (100.00)	81 (100.00)
Grand Total	1362 (26.8)	478 (9.4)	315 (6.4)	2235 (44.3)	499 (9.8)	164 (3.3)	5063 (100.00)	

Notes: Figures in within brackets indicate percentages vertically in Col-9 and in items-9 in both the sub-parts horizontally.

61 or about 18 percent, were in the age-groups '15-17 years'; and only 17 (or 2 percent), in the age-group '46-60 and above'. Incidentally, it appears that the love for good education amongst slum-dwellers is a phenomenon largely of Independent India - which provided encouragement through setting up more schools, scholarships etc. to the weaker sections of the population.

7.05 Educational levels, associated with family skill inherited from the earlier generation or ^{from} the senior members of family along with the contacts with relations/friends plus individuals' own faculties and propensities to do hard-work help in raising the productivity and therefore the income levels. Out of 4,195 persons - held by 800 sample slum households, 3078 were not employed (or were not in the labour force) and rest 1,117 were occupied; (or the proportion of working population was 24.6 percent ³). It also implies that average worker: household ratio was 1.396 (or 1.4) in the slum settlements. In case of 200 squatters households - the total number of persons and occupied persons were - 868 and 27.2 respectively - giving the proportion of working population to total population 32.5 ⁴) percent and a ratio of 1.36 for workers per household. It thus follows that the proportion of the working population is higher in squatter settlements than that in slum settlements because all family of the squatters has not shifted to the metropolis. Again, on the other side the worker/family members ratio is lower amongst the squatters is lower than that for slum dwellers - perhaps due to some worker of some of the families remained behind in the native place to look after the farms left behind. (see Table-6.05)

3) & 4): In comparison the proportion of working population to total population according to 1971-Census, in India, was 31 percent; and perhaps the same proportion in 1976-77.

6.06 According to data presented in Table-5.05 arising out of a survey of 1000 sample slum and squatter households it turns out that, out of 4195 persons in the slum colonies, 1,117 (or 26.2 percent) were occupied; of which , according to education levels, the illiterate workers employment is of 490 (or 43.9 percent); of 273 (or 2.4 percent), primary-level workers; of 188 (or 16.8 percent), middle school level workers; of 96 (or 8.6 percent), high-school levels workers; of 30 (or 2.5 percent), intermediate level workers; of 19(or 1.7 percent), graduate level workers; of 15 (or 1.3 percent), above graduate level; and 6 (or 0.5 percent), technical/vocational level.

7.07 In other words, it also means that out of 2113 illiterate persons, 490 workers constitute 23.2 percent; out of primary level 1144 persons, 273 workers form 23.9 percent; out of middle-school persons, 188 workers represent only 35.7 percent; out of 243 high-school level persons, 96 workers are 39.5 percent; out of 91 intermediate-level persons, 30 workers(33 percent); out of 44 graduate-level persons, only 19(or 43.2 percent) are employed workers; out of 24 'above graduate-level' persons only 15 (or 62.5 percent) are employed workers; and out of 9 technical/vocational level persons, only 6 (or 66.7 percent) are employed workers. -In any case, it emerges that educated classes from high-school to above graduate level (and also technical/vocational level) had a high degree of unemployment - ranging from 33.3 percent for the technical/vocational level workers; 37.5 percent for 'above graduate' level workers; 46.8 percent for graduate-level workers; and for intermediate level workers, 67

Table-6.05: Educational Levels and Occupied Manpower

Educational Levels No. of persons & colonies	Slum Colonies			Squatter colonies			Total		
	Persons	Occupied workers	% (3) to (2)	Persons	Occupied	% (6) to (5)	Persons	Occupied	% (9) to (10)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Illiterate	113	490 (43.9)	23.2	568	155 (57.0)	27.3	2681	645	24.1
Primary	1144	273 (24.4)	23.9	190	61 (22.4)	32.1	1334	464	34.8
Middle	527	188 (16.8)	35.7	65	32 (11.8)	49.2	592	220	37.2
High School	243	96 (8.6)	39.5	28	17 (6.2)	60.7	271	113	41.7
Intermediate	91	30 (2.8)	33.0	6	1 (0.4)	16.7	97	31	32.0
Graduate	44	19 (1.7)	43.2	7	3 (1.1)	42.9	51	22	43.1
Above Graduate	24	15 (1.3)	62.5	3	2 (0.7)	66.7	27	18	66.7
Technical/ Vocational	9	6 (0.5)	66.7	1	1 (0.4)	100.0	10	7	70.0
Total	4195	1117 (100.00)	26.6	868	272 (100.00)	43.4	5063	1520	30.00

Note: Figures within brackets under col. 3, 6 and 9 indicate percentages vertically and in col. 4, 7, 10 as indicator in the Table.

percent; and for high school level workers, 60.5 percent.⁵

The unemployment among the educated young men is bane of developing countries of developed urban educated for long; and it is pertinent to evolve a strategy, at the earliest, to create a pattern of education which will produce such a manpower which will be required. In the absence of such a strategy, there will be overcrowding of manpower in some job markets and abominal scarcity of some skills.

5) In Kanpur City, the malady of unemployment of educated young men has been chronic; for example, between 1953-54, the registrations were 3439 and 6973 for matriculates but placements were only 140 and 209; for Intermediates, 1026 and 2347 were the registrations but placements, only 40 and 85; for graduates and post-graduates, 829 and 1465 were registrations, but placements only 61 and 132. All told the proportion of placements to total registration never exceeded 4.5 percent. (D.N Majundar: Ibid page 58 Table-X)

6.03 Occupationally, in relation to educational levels, it appears that a larger proportion of squatter workers are illiterate, forming 57 percent of the total 272 squatter workers; whereas, proportion of illiterates is 43.9 percent in case of slum workers. However, in case of primary, middle and high school educational levels, the percentages of slum workers are higher at 24.4 percent, 16.8 percent and 8.6 percent respectively compared to the corresponding percentages are 22.4 percent, 11.8 percent, and 6.2 percent. Similarly the percentages of workers

declines fast with higher educational levels both for slum and squatter workers but the decline is sharper in case of squatter workers whose proportions for intermediate, graduate and above graduate levels are 0.4 percent, 1.1 percent, and 0.7 percent as against 2.8 percent, 1.7 percent, and 1.3 percent for slum workers. Nonetheless, the percentages in case of technical/vocational workers, are almost identical at 0.5 percent and 0.4 percent in regard to slum workers and squatter workers respectively. Foregoing analysis broadly, says that amongst the workers, there is high degree of illiteracy amongst squatter workers and better levels of higher educational levels amongst the slum-dwellers, in general. Hence, the marginal productivity of the workers, on an average, will be lower for the squatter workers and that of the slum workers high; other superimposing factors, which do not allow the squatter workers ^{higher wages are} the relatively newer arrivals in the metropolis, less of helping factors such as of acquaintances, contact points etc. Nevertheless, it is true that out of a total of 1389 slum and squatter workers, 645 workers (or 46 percent) are illiterate and 979 workers (or 70 percent) are having educational level upto primary standard; thus, it is almost probable that this proportion of workers/households, may be living at below the poverty line. (For data refer to Table 6.06).

Table 5.06: Occupational Distributions according to Educational levels amongst members of the Slum and Squatter Households.

Occupation Distribution	Levels of Dis- tribution	Names of occupations by code Nos. (Number of workers)								Total
		I	II	III	IV	V	VI	VII	VIII	
<u>Slums</u>										
Illiterate		8	5	179	55	31	98	361	78	<u>490</u> <u>(43.9)</u>
Primary		1	5	103	32	12	64	14	42	<u>273</u> <u>(24.4)</u>
Middle		3	2	71	13	4	41	11	43	<u>188</u> <u>(16.8)</u>
High School		3	1	31	7	2	17	2	33	<u>96</u> <u>(8.6)</u>
Intermediate		-	-	7	1	1	5	1	15	<u>30</u> <u>(2.8)</u>
Graduate		-	-	4	-	-	-	1	14	<u>19</u> <u>(1.7)</u>
Above graduate		-	-	-	-	-	-	-	15	<u>15</u> <u>(1.3)</u>
Technical/Vocational		-	-	4	-	1	-	-	1	<u>6</u> <u>(0.5)</u>
(i) Sub-Total	%	<u>15</u> <u>(1.3)</u>	<u>13</u> <u>(1.2)</u>	<u>399</u> <u>(35.7)</u>	<u>108</u> <u>(9.6)</u>	<u>51</u> <u>(4.6)</u>	<u>225</u> <u>(20.2)</u>	<u>65</u> <u>(5.8)</u>	<u>241</u> <u>(21.6)</u>	<u>1157</u> <u>(100.00)</u>
<u>Squatters</u>										
Illiterate		2	6	45	14	8	26	16	38	<u>155</u> <u>(57.0)</u>
Primary		1	1	17	8	8	14	3	9	<u>61</u> <u>(22.4)</u>
Middle		1	1	9	3	1	8	2	7	<u>32</u> <u>(11.8)</u>
High School		-	-	6	-	-	7	1	3	<u>17</u> <u>(6.2)</u>
Intermediate		-	-	-	-	-	-	-	1	<u>1</u> <u>(0.4)</u>
Graduate		-	-	-	-	-	2	-	1	<u>3</u> <u>(1.1)</u>
Above graduate		-	-	-	-	-	1	-	1	<u>2</u> <u>(0.7)</u>
Technical/Vocational		-	-	-	-	-	-	-	1	<u>1</u> <u>(0.4)</u>
(ii) Sub-Total		<u>4</u> <u>(1.5)</u>	<u>8</u> <u>(2.9)</u>	<u>77</u> <u>(28.3)</u>	<u>25</u> <u>(9.2)</u>	<u>17</u> <u>(6.3)</u>	<u>58</u> <u>(21.3)</u>	<u>22</u> <u>(8.1)</u>	<u>61</u> <u>(22.4)</u>	<u>272</u> <u>(100.00)</u>
Total		<u>19</u> <u>(1.4)</u>	<u>21</u> <u>(1.5)</u>	<u>476</u> <u>(34.2)</u>	<u>138</u> <u>(9.8)</u>	<u>61</u> <u>(4.9)</u>	<u>283</u> <u>(20.4)</u>	<u>87</u> <u>(6.2)</u>	<u>302</u> <u>(21.6)</u>	<u>1389</u> <u>(100.00)</u>

Codes: I. Cultivators and agricultural workers. II. Mining and Quarrying, Forestry, Livestock, Plantations, Orchards etc. (III & IV) III. Manufacturing, Processing, Servicing, Repairs & other than household industry. IV. same as in 3, in household Sector. V. Construction. VI. Trade & Commerce VII. Transport, Storage and Communications VIII. Other Services (domestic services, professions, traders doctors etc)

6.9 It is interesting to see that amongst the slum and squatter workers, 34.2 percent were employed in 'manufacturing, processing, repairs industry' and 9.8 percent in 'household industry'; it implies that 44 percent were employed in the 'secondary sector'. However, corresponding proportions for slum workers are, 35.7 percent and 9.6 respectively for the 'manufacturing, processing, repairs industry' and 'household industry' - making a total of 45.3 percent.

Thus, in the secondary sector the employment was higher for the slum workers at 45.3 percent than of squatter workers which was 37.5 percent. Since, new construction is also considered as an industry, the percentages of this occupation of 4.6 and 6.3 respectively for slum-workers and squatter workers when added, the 'secondary sector's employment' proportions go upto 49.6 or 50 percent for slum workers and 43.8 or 44 percent for the squatter workers. Next, in employment importance are 'other services', 'Trade & Commerce', and 'Transport', 'storage, and communications' - having the aggregate proportions of 21.6 percent, 20.4 percent and 6.2 percent; in case of 'other services' and 'Trade and Commerce' squatter workers' proportions are higher at 22.4 percent and 21.3 percent as compared to 21.6 percent, and 20.2 percent for the slum-dwellers. Further, in case of 'Transport, storage and communication' occupation also the proportion of squatter workers is higher at 8.1 percent as against 5.8 percent for slum-workers. It implies that in the 'tertiary sector', the employment's proportion for the slum workers is 47.6, whereas it is, 51.8 percent for squatter workers. In brief, it can be said that the squatters' proportion was higher at 51.8 in the tertiary sector whereas it was 49.6 percent for the 'slum workers, in face of 47.6 percent for slum workers

'tertiary sector' and 44 percent for the squatters in the 'secondary sector'. Thus squatter workers have a lead in the tertiary sector (or services sector) and the slum workers in the secondary sector as regards the proportion of occupied workers (See Table 6.06)

6.10 The primary occupation on the aggregate was less than 3 percent for all the slum and squatter workers - though it was 4.4 percent for squatter workers and only 2.5 percent for slum workers - perhaps because more of open space is available to squatters along with their working as cultivators and agricultural labourers and live-stock, orchards. This situation also in association with construction work wherein employment proportion in construction profitable six times higher by 1.5 times more of squatter workers than that of the slum workers.

6.11 It is difficult to find out correct income levels since the responses in regard to income inquiry is not reliable -/some state ^{since} ~~their~~ income higher to show off their income status; and some ^{state} a lower figure with a view to escape the tax net. Hence, it was decided to inquire in respect of a households' expenses on different items of consumption and the total expenses incurred in the month ^{just} preceding the month in which the household schedule was canvassed (through questions 22.0 - 23.0). The expenditure has been grouped in eight expenditure classes separately for the slum households and squatter households and also the ^{ir} combined proportions. (Table-6.07)

Table- 6.07: Frequencies of the Sample Slum and Squatter Households according to Monthly Expenditure Classes in Kanpur City (in June 1976).

Sl. No.	House- holds Expendi- ture classes (Rs.)	Numbers		Total
		Slum households (3)	Squatter Households (4)	
(1)	(2)	(3)	(4)	(5)
1.upto Rs.100		53 (6.6)	18 (9.0)	71 (7.1)
2.101-150		90 (11.2)	50 (25.0)	140 (14.0)
3.151-200		105 (13.1)	40 (20.0)	145 (14.5)
4.201-250		109 (13.6)	23 (11.5)	132 (13.2)
5.251-300		149 (18.6)	23 (11.5)	172 (17.2)
6.301-500		219 (26.5)	31 (15.5)	250 (25.2)
7.501-1000		69 (8.6)	14 (7.0)	83 (8.3)
8.Over Rs.1000		6 (0.8)	1 (0.5)	7 (0.7)
<u>Total</u>		<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Notes: Figures within brackets indicate percentages vertically.

9.12 Since the household sizes varied from 1 person household to 15 persons and above, it was considered meaningful to reduce the expenditure levels per capita in order to have a realistic picture of expenditure pattern. The over-all picture, in regard to the households distribution vis-a-vis per capita monthly expenditure (June, 1976), for the slum and squatter households is given in Table 6.08 below.

Table - 6.08 Per Capita Monthly Expenditure Classes
of Slum and Squatter
Households in Kanpur city (in June 1976)

Sr. No.	Per Capita Expenditure Classes (Rs.)	Households		Total
		Slum	Squatter	
1.	Upto Rs.50	357 (44.6)	86 (43.0)	443 (44.3)
2.	51-75	248 (31.0)	61 (30.5)	309 (30.9)
3.	76-100	108 (13.5)	25 (12.5)	133 (13.3)
4.	101-150	71 (8.9)	22 (11.0)	93 (9.3)
5.	151-200	10 (1.3)	6 (3.0)	16 (1.6)
6.	201-300	6 (0.7)	-	6 (0.6)
7.	Total	800 (100.00)	200 (100.00)	1000 (100.00)

Note: Figures within brackets indicate percentage vertically.

6) Out of 1000 sample households, 1-person households were 9.1 percent; 2-person households, 9.4 percent; 3-person household, 12.5 percent; 4-person households, 16.3 percent; 5-person household 13.2 percent; 6-8 person households, 28.5 percent; 9-11 person-households, 7.5 percent; 12-15 and more households, 2.9 percent. The corresponding percentages for 800 slum households are: 8.0 percent, 8.3 percent, 12.3 percent, 14.5 percent, 14.3 percent, 30.8 percent, 8.4 percent and 3 percent respectively; and for squatter households these are: 13.5 percent, 14.0 percent, 13.5 percent, 2.5 percent, 9 percent, 20.5 percent, 4.0 percent, and 2.5 percent respectively.

Household
Expenditure

6.13 The pattern of expenditure capacity distribution of the 800 sample slum households according to the survey is as follows expenditure classes, as revealed by / In the expenditure class 'upto Rs.100' p.m., proportion of households is 6.6 percent, and 9 percent, for 200 sample squatter households; for expenditure class Rs.101-150 p.m. the corresponding percentages are 11.3 percent and 25 percent; for expenditure class Rs.151-200 p.m., 13.1 percent and 20 percent; for expenditure class Rs.201-250 p.m. 13.6 percent and 11.5 percent; for expenditure class Rs.251-300 p.m. , 18.6 percent and 15.5 percent; for expenditure class Rs.301-500, 27.4 percent and 15.5 percent; for expenditure class Rs.501-1000, 8.6 percent and 7.0 percent; and for expenditure class Rs.1001 and over, 0.8 percent and 0.5 percent. From this ordinarily it appears that inequality is more for squatter households as compared to slum households. When the total expenditures of the expenditure classes are estimated, the picture emerging of expenditure distribution between various expenditure classes assumes a different pattern. Corresponding proportions for all the eight expenditure classes of the slum households and squatter households respectively are: Class I, 1.6 percent and 2.7 percent; Class II, 4.6 percent and 12.5 percent; Class III, 7.4 percent and 13.9 percent; Class IV, 10 percent and 10.3 percent; Class V, 16.7 percent and 12.6 percent; Class VI, 35.7 percent and 24.7 percent; Class VII, 21.1 percent and 20.9 percent and Class VIII, 2.9 percent and 2.4 percent. In this recast of the pattern, the inequity is more for slum households than the squatter households. (For data see Table 6.09 and also Lorenzo Curve)

Table-6.09: Distribution of Slum and Squatter Households' Expenditure classes and their frequencies and cumulative frequencies in Kanpur City (in June 1976)

Income Ranges Slum Households	Slum Households (1)	Per cent frequency (2)	Cumulative frequencies (3)	Average Income (Rs.) (4)	Total Income (6)	Per cent frequency (7)	Cumulative frequencies (8)
upto Rs.100	53	6.6	6.6	75	3975	1.6	1.6
101-150	90	11.3	17.9	125	11250	4.6	6.2
151-200	105	13.1	31.0	175	18375	7.4	13.6
201-250	109	13.6	44.6	225	24525	10.0	23.6
251-300	149	18.6	63.2	275	40975	16.7	40.3
301-500	219	27.4	90.6	350	87600	33.7	76.0
501-1000	69	8.6	99.2	750	51750	21.1	97.1
1000(+)	6	0.8	100.0	1200	7200	2.9	100.0
Sub-Total	800	100.0		245650			
<u>Squatter Households.</u>							
upto Rs100	18	19.0	9.0	75	1350	2.7	2.7
101-150	50	25.0	34.0	125	6250	12.5	15.2
151-200	40	20.0	54.0	175	7000	13.9	29.1
201-250	27	11.5	65.5	225	5175	10.3	39.4
251-300	23	11.5	77.0	275	6325	12.6	52.0
301-500	31	15.5	92.5	359	12400	24.7	76.7
501-1000	14	7.0	99.5	750	10500	20.9	97.6
1000(+)	1	0.5	100.0	1200	1200	2.4	100.0
Sub-Total	200	100.0		50200			
<u>Total</u>							
upto Rs100	71	7.1	7.1	75	5325	1.8	1.8
101-150	140	14.0	21.1	125	17500	5.5	7.7
151-200	145	14.5	35.6	175	25375	8.6	16.3
201-250	132	13.2	48.8	225	29700	10.0	26.3
251-300	172	17.2	66.0	275	47300	16.1	92.4
301-500	250	25.0	91.0	350	100000	33.8	76.2
501-1000	83	8.3	99.3	750	62250	26.0	97.2
1000(+)	7	0.7	100.0	1200	8400	2.8	100.0
Total	1000	100.0		295850	100.0		

Table-6.10: Total Accumulated Savings Ranges (as in June 1976) of Slum and Squatter households in Kanpur City according to Expenditure classes of households.

Mon thly house hold Ex- penditure	Sav- ings						Households						Squatter Households						Total Households					
	Sav- ings up to Rs. 5	Sav- ings up to Rs. 10	Sav- ings up to Rs. 25	Sav- ings up to Rs. 50	Sav- ings up to Rs. 100	Sub- up to Rs. 5	House- holds up to 10	House- holds up to 25	House- holds up to 50	House- holds up to 100	Sub- up to Rs. 5	House- holds up to 10	House- holds up to 25	House- holds up to 50	House- holds up to 100	Sub- up to Rs. 5	House- holds up to 10	House- holds up to 25	House- holds up to 50	Sub- up to Rs. 5	House- holds up to 10	House- holds up to 25	House- holds up to 50	
Upto Rs100	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.		
101-150	2	3	5	2	-	-	(1.8)	1	1	-	2	-	-	(3.8)	5	1	2	-	1	1	(2.1)			
151-200	6	4	14	9	3	5	(3.1)	2	3	2	2	-	-	(11.2)	4	6	7	4	-	-	(4.5)			
201-250	3	6	16	12	5	3	(10.6)	2	2	3	6	-	1	(14.8)	8	6	17	15	3	6	(5.6)			
251-300	4	7	32	31	18	3	(11.6)	2	1	2	3	1	2	(11.8)	5	7	18	15	6	6	(11.8)			
301-500	2	5	35	52	16	17	(24.5)	3	1	4	5	3	3	(17.5)	4	7	38	36	21	3	(10.9)			
501-1000	1	3	10	13	12	16	(32.7)	52	-	-	1	3	2	(23.8)	5	6	39	57	19	20	(23.3)			
Over Rs1000	-	-	1	-	2	3	(14.2)	-	-	-	-	1	3	(11.3)	1	3	11	16	14	25	(31.7)			
							(1.5)	-	-	-	-	1	(1.1)	-	-	1	-	2	4	(13.7)				
Total	22	29	113	119	57	48	388	10	7	20	24	9	10	80	32	36	133	143	66	58	468			
Approx.%	(6)	(8)	(29)	(31)	(15)	(12)	(100)	(13)	(9)	(25)	(30)	(11)	(13)	(100)	(7)	(8)	(28)	(31)	(14)	(12)	(100)			

+ A one-person household earning Rs. 100 p.m. spending Rs. 45 p.m. in June 1976

* A one person household earning Rs. 300 p.m. spending Rs. 60 p.m. in June 1976.

Note: Figures within brackets in col.8, 15, 22 indicate percentages vertically

Households
Savings

6.14 For a household to save, ordinarily a rise in income level does help in augmenting the savings rate; but it is possible that some of the households may prove exceptions to the usual phenomenon either arising out of larger number of members in the households or some specialised items of expenditure. For example, as shown in Table 7.10, it is found that 'every expenditure class' has certain number of households who 'do not save at all.' Out of 800 sample slum households, 412 (or 51.5 percent) do not save; and of the 200 sample squatter households 120, (or 60 percent) do not save'; nonetheless, it is true that 'non-savers' abound in the first four low income for expenditure households forming more than 95 percent.

6.15 On the other, there is also a possibility that a few low-income households might save (and at a higher propensity to save) - primarily because of they being one or two-member households and belong to household group who have not developed a wider canvass of consumption goods/services. However, it can equally be true that higher income households savings' propensity does not turn one to ^{savings} higher/because of Friedman's irreversibility phenomenon ^{on} consumer behaviour - as can be seen that at a higher levels, savings propensity of the high-income households almost disappears from Rs.101-150 and upwards ^{per month}. household income in case of both slum and squatter households - and in some cases savings phenomenon displays lower levels of savings propensity.

6.16 In all, it is 412 slum-households (or 51.5 percent) and 120 (or 60 percent) squatter households - who do not save. It is only 48.5 percent of slum households who are savers and only 40 percent squatter households who save. 5.6 percent amongst the 388 saver slum households and 12.5 percent amongst the 80 savers'

squatter households save 'upto Rs.5 p.m.'; 7.5 percent slum households and 8.8 percent squatter households, save 'between Rs.6-10 p.m.'; 29.1 percent slum households and 25 percent of squatter households, save 'Rs.11-25 p.m.'; 30.7 percent of slum households and 30 percent of squatter households, save 'Rs.26-50 p.m.'; 14.7 percent of slum households and 11.2 percent of squatter households, save 'Rs.51-100 p.m.'; and 12.4 percent of slum households and 12.5 percent of squatter households, save 'Rs.101 and more'. In aggregate, out of 1000 sample households, ^{only} 468 are savers (See Table 6.10)

6.17 The data and the analysis flowing from Table 7.10, ^{only} relate to households who had affected savings during the month of June 1976 - belonging to various expenditure classes of the households. However, throughout the year (in some months) there are some households who save - and some others who do not save (in some months). Some are regular savers and some are occasional savers. About 509 are in fact 'no savers' in-toto, and 491 are savers, of whom ^{only} 468 have been reflected in Table 6.11 who saved in the month of June 1976. Of the 491 savers, 409 were slum households and 82 ^{only} squatter households. Again, of 491

regular savers were 374; 313 amongst slum households and 61 among squatter households - rest were occasional savers, that is 117: 86 amongst slum households and 31 squatter households. Therefore, it is pertinent to refer to the percentage distribution of the savers (in different savings brackets) and non-savers. In the 'nil', 'upto Rs.5 per month', 'Rs.6-10', 'Rs.11-25', 'Rs.26-50', 'Rs.51-100', and 'Rs.101 and more' savings brackets - the respective proportion are 48.9 percent, 2.8 percent, 4.3 percent, 14.6 percent, 16 percent, 7.2 percent and 6.2 percent in case of slum households; and in case of squatter households 59 percent, 5 percent, 3.5 percent, 10 percent,

13 percent, 4.5 percent and 5 percent. It shows that the proportions of savers was only 40 percent amongst the squatter households and 51 percent amongst the slum households. (See Table-6.11).

Table-6.11: Usual Number and proportions of Savers and Non-savers Amongst 800 sample Slum Households and 200 Sample Squatter Households in Kanpur City.

Saving Brackets	Slum Households		Sub-Total	Squatter Households		Sub-Total	Total		Total
	Non-Savers	Savers		Non-Savers	Savers		Non-Savers	Savers	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
'Nil'	391	-	418	118	-	-	509	491	1000
Upto Rs.5	-	22	-	-	10	-	-	-	32
Rs.6-10	-	34	-	-	7	-	-	-	41
Rs.11-25	-	117	-	-	20	-	-	-	137
Rs.26-50	-	128	-	-	26	-	-	-	154
Rs.51-100	-	58	-	-	9	-	-	-	67
Rs.101 and over	-	50	-	-	10	-	-	-	60
Total	391	409	800	118	82	200	509	491	1000
	(45.9)	(45.1)	(100.00)	(58.0)	(41)	(100)	(50.9)	(49.1)	(100)

6.18 The institutional agencies used, was by 55.4 percent of a sample of 1000 by slum and squatter households, in the aggregate. The specific proportions in case of slum households and squatter households respectively are 37.5 percent and 24.5 percent. The agencies used by the 'savers' are the post-offices, banks, insurance corporation and provident funds - the overall proportion for slum and squatter household agency-wise were respectively 3.5 percent, 7.8 percent, 13.8 percent and 9.8 percent. The specific proportion for slum households as regards post offices, banks, insurance corporation and provident funds are 3.9 percent, 8.4 percent, 15.6 percent and 9.7 percent respectively; and in case of slum squatter house-

2 percent, 5.5 percent, 6.5 percent and 10.5 percent. The regular compulsory savings in case of insurance and provident fund receive preferences by the 'savers' - their proportion being 25.3 percent in case of slum-households (out of 37.5 percent of savers) and 17 percent in case of squatter households (out of 24.5 percent of savers). It implies that two-thirds of the savers have preferences for 'insurance and provident fund agencies' for putting their savings; those for post offices and banks' - the proportion of the slum and squatter households are 3.9 percent and 2.5 percent respectively for 'post offices' and 8.4 percent and 5.5 percent ^{for} banks'. Nonetheless, it is important to note that both the slum and squatter households have the highest preference for keeping the savings with themselves - because they are perhaps convinced that no outside agency is more reliable or trustworthy than the institution of self-reliance; accordingly the proportion of the slum and squatter households are 21 percent and 19 percent respectively who opt for depositing savings under own control. (For details see Table 6.12)

Table 6.12: Agencies where the savings are put for Security and Preferences by Slum and Squatter Households in Kanpur City.

Agencies	No. of Slum Households' who save (1)	No. of Squatter Households' who save (2)	Total
	(1)	(2)	(3)
No Savings	333 (41.6)	113 (56.5)	446 (44.6)
At Home	167 (28.9)	38 (19.0)	205 (20.5)
Post Offices	31 (3.9)	4 (2.0)	35 (3.5)
Banks	67 (8.4)	11 (5.5)	78 (7.8)
Insurance Corporation	125 (15.6)	13 (6.5)	138 (13.8)
Provident Funds	77 (9.7)	21 (10.5)	98 (9.8)
<u>Total</u>	<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Note: Figures within brackets indicate percentages.

Table-6.13: Accumulated Savings of the Slum and Squatter Households in Kanpur City as at the end of June 1976.

Accumulated Savings (Rs.)	Slum House-holds	Squatter House-holds	Total House-holds
(1)	(2)	(3)	(4)
Nil	333 (41.6)	113 (56.5)	446 (44.6)
Upto Rs.250	71 (8.9)	21 (10.5)	92 (9.2)
251-500	42 (5.3)	13 (6.5)	55 (5.5)
501-1000	67 (8.4)	13 (6.5)	80 (8.0)
1001-2500	121 (15.0)	16 (8.0)	137 (13.7)
2501-5000	102 (12.8)	10 (5.0)	112 (11.2)
Above Rs.5000	64 (8.0)	14 (7.0)	78 (7.8)
<u>Total</u>	<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Note: Figures within brackets indicate percentages vertically.

6.19 446 households (44.6 percent) - 333 slum households (41.6 percent) and 113 (56.5 percent) squatter households do not have accumulated savings - and only 554 (or 54.6 percent) have some accumulated savings. It implies that 58.4 percent of slum households and 44.5 percent of squatter households have some accumulated savings. In the six size classes of accumulated savings of 'upto Rs.250', Rs.251-500, Rs.501-1000, Rs.1001-5000, Rs.2501-5000, and Rs.5000, the proportion of slum households are respectively 8.9 percent, 5.3 percent, 8.4 percent, 12.8 percent and 8 percent; and in case of the squatter households the proportion are 10.5 percent, 6.5 %, 8%, 5% and 7%. Except for the first two classes (i.e upto Rs.250 and Rs.251-500), the proportion of the squatter households are higher than slum households and later on in other 4 classes the proportion are higher in slum households (cumulative proportion being 44.2%) than that of squatter households (who reach the cumulative frequency to 27%) Thus in absolute terms the saving accumulation are, no doubt, higher of slum households than that of squatter households (See Table 6.13)

Borrowings

6.21 Savings facilitate 'a deferred and more useful' employment of once income both for 'consumption' and in generating relatively more income in future. This task can as well be achieved by using others savings - by borrowing and paying a 'fee' for the use of services of borrowed financial funds, which is in common parlance is called 'interest'. But low-income households in the slum and squatter settlements do have to borrow more often for consumption needs (by paying high interest rate) but infrequently for investment purposes. The survey data emitted through the interview schedules Q.Nos 25.0 to 25.7, indicate the structure of borrowings, rate of interest, security offered etc. It has been found that only 44.5 percent of total slum and squatter households⁷⁾ indulged in borrowing and the rest 56.5 percent did not borrow. Out of 44.5 percent, 23.3 percent (or nearly half) of the borrowers were regularly borrowing. Nonetheless, the regular borrower households proportion is lower at 17.5 percent for squatter households than that of slum-dwellers - which is 23.3 percent.

6.22 Monthly patterns of borrowings (so also of savings) fluctuate; and in the month of June 1976, the-borrower households were 233 (or 23.3 percent) and non-borrowers, 767 (or 76.7 percent) - and the proportion of aggregate borrowing households, for lower amounts, (i.e. upto Rs.10, between 11-25, 26-50, 51-100 ranges) are generally smaller - often not exceeding 4 percent,

7) This proportion incidently clicks with the 444 of households who are non-savers; and it latently could convey that borrowers were non-savers and savers were non-borrowers; however, this may not be absolutely correct - but the aberrations might be few.

whereas borrowing for amounts of Rs.101 and over in the latter category, number are about 8 percent. Again, the latter category, number of households in the 'per capita expenditure' Class-I were 28 (or 31 percent) out of 78 - and it is obvious that the borrowings could primarily be for consumption - and by expenditure Class VI, it is possible that borrowings were investment purposes. (See Table 6.14).

Table 6.14: Borrowing Patterns of the Slum and Squatter Households in Kanpur City in June 1976.

Sl. No.	Ranges of borrowings (Rs.)	Slum House- holds	Squatter Households	Total
(1)	(2)	(3)	(4)	(5)
1.	Nil	612 (76.4)	155 (77.5)	767 (76.7)
2.	upto Rs.10	29 (3.6)	7 (3.5)	31 (3.6)
3.	11-25	29 (3.6)	11 (5.5)	40 (4.0)
4.	26-50	38 (4.8)	10 (5.0)	48 (4.8)
5.	51-100	27 (3.4)	4 (2.0)	31 (3.1)
6.	101 and over	65 (8.2)	13 (6.5)	78 (7.8)
7.	<u>Total</u>	800 (100.00)	200 (100.00)	1000 (100.00)

Note: Figures within brackets show percentages vertically.

6.23 The accumulated borrowings of the slum and squatter households relate to 435 households only: 348 slum households and 87 squatter households; thus, the non-borrowers are only 565 (or 56.5 percent): 452 (56.5 percent) slum households and 113 (or 56.5) squatter households.

According to size classes of accumulated borrowings of upto Rs.250, Rs.251-500, Rs.501-1000, Rs.1001-2500, Rs.2501-5000, and Rs.5001 and above, the proportion of slum households are 9.6%, 9.8%, 9.2%, 2%, and 1.9%; and that of squatter households are 9%, 13%, 9.5%, 8%, 1% and 3%, meet:

5.24 The borrowings emanated because urgency to (1) the current households expenses, (2) ceremonies of birth, marriage and deaths; (3) Illness; (4) Travel; and (5) business, if any. On account of meeting the need of household expenses,

Table-6.15: Accumulated Borrowings of the Slum and Squatter Households in Kanpur City at the end of June 1976.

Sl. No.	Ranges of Accumulated Indebtedness	Slum House- holds	Squatter Households	Total
(1)	(2)	(3)	(4)	(5)
		(Rs.)		
1. Nil		452 (56.5)	113 (56.5)	565 (56.5)
2. Upto Rs.250		80 (9.6)	18 (9.0)	98 (9.8)
3. 251-500		80 (9.8)	26 (13.0)	106 (10.6)
4. 501-1000		83 (9.9)	19 (9.5)	102 (10.2)
5. 1001-2500		74 (9.2)	16 (8.0)	90 (9.0)
6. 2501-5000		16 (2.0)	2 (1.0)	18 (1.8)
7. 5001 and above		15 (1.9)	6 (3.0)	21 (2.1)
<u>Total</u>		<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Note: Figures within brackets show percentages vertically.

24.1 percent of 800 sample slum households borrowed funds, and only 20.5 percent of squatter households; for ceremonies, 8.6 percent of slum households and 11 percent of squatter households; for illness, 5.6 percent of slum households, and 7 percent of squatter households; for travel, almost 'nil' by both the slum and squatter households; and for business purposes, by 5.4 percent of slum households and 5 percent of squatter households. The borrowing percentages of the slum households for household expenses are due to bigger sizes of these households as almost all of their members stayed in Kanpur - which are **is** applicable in case of squatter households. For 'illness' the borrowings were by 7 percent of squatter households as compared to 5.6 percent of slum households because poorer arrangements of potable water, drains, dispensaries etc. and also because the former live in unauthorised colonies. However, in case of borrowing for ceremonies which are wasteful expenses, the proportion was higher at 11 percent for squatter households as against only 8.6 percent of slum households. It is healthy to find that 5.4 percent of slum households and 5 percent of squatter households borrowed, to finance their business needs which help to augment their income levels. (See Table-6.16)

Table 6.16: Reasons for Borrowing by Slum and Squatter Households in Kanpur City.

Sl. No.	Type of Needs	Slum House- holds	Squatter House- holds	Total
1.	Not borrowed	452 (56.5)	113 (56.5)	565 (56.5)
2.	Household Expenses	193 (24.1)	41 (20.5)	234 (23.4)
3.	Ceremonies	69 (8.6)	22 (11.0)	91 (9.1)
4.	Illness	42 (5.3)	14 (7.0)	56 (5.6)
5.	Business	43 (5.4)	10 (5.0)	53 (5.3)
6.	Travel	1 (0.0)	- (0.0)	1 (0.0)
<u>Total</u>		<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Note: Figures within brackets show percentages.

6.25 The sources of getting debts for borrowing have been money lender, grocer, employer, banks, friends and relatives. In order of importance of sources both for the slum and squatter households are money lender, friends, employer, grocer, relatives, banks and chit-fund. The 'money lender' appears to be the main-stay of getting the loans, and more than one-fifth of the squatter households used this source; and about 17.8 percent of the slum households. Next source is the 'friends' - 12 percent of the squatter households and 11.4 percent of the slum households depended. Third source is the 'employer' on which 7.5 percent of the slum households depended and 4 percent of the squatter households depended. Fourth source is the 'local grocer' on whom nearly 2-2.5 households relied; and another source is the 'relative' on whom 1.5-3 percent of households looked on. Institutionally only the 'banks' came to play the tune, their proportion benefiting ranged between 1.5-1.7 of the households; and "chit funds" have almost no role to play (See Table 6.17).

Table-6.17 : Loans' Resources available to Slum and Squatter Households in Kanpur City.

Sl. No.	Sources of loans	Slum House- holds	Squatter House- holds	Total
(1)	(2)	(3)	(4)	(5)
1. No borrowing	452	113		565
	(56.5)	(56.5)		(56.5)
2. Money lender	142	42		184
	(17.8)	(21.00)		(18.4)
3. Friends	91	24		115
	(11.4)	(12.00)		(11.5)
4. Employer	60	8		68
	(7.5)	(4.00)		(6.8)
5. Grocer	16	5		21
	(2.0)	(2.5)		(2.1)
6. Relatives	23	3		28
	(2.8)	(1.5)		(2.8)
7. Banks	14	3		17
	(1.8)	(1.5)		(1.7)
8. Chit-fund	2	-		2
	(0.2)			(0.2)
Total	800	200		1000
	(100.00)	(100.00)		(100.00)

Note: Figures within the brackets indicate percentages.

6.26 Repayments made by the lenders to the creditors are generally in lump sums and instalments (- weekly/ monthly/ half-yearly/ annually). About 3 percent, paid by weekly instalments, 35 percent by monthly instalments; 3-4 percent by half-yearly instalments, and 55-56 percent, by annual instalments. When borrowed from friends and relations perhaps the interest was not payable such ^{borrowed} numbered about 178 (nearer to a total of 143 households borrowing ^{from} such sources). But in other cases the interest rates (per month) ranged as high as 100 percent; nearly 25 percent of the borrower households paid a rate upto 25 percent; 0.5 percent, paid 26-50 percent interest; 0.2 percent, paid 51-100 percent interest, and 0.1 percent paid more than 100 percent interest. Thus out of a 1000 total households 435/borrowers and of them 257 households paid interest and of them 8 paid 25-100 or more percent rate of interest. Thus, the real income of the borrowers eroded to a large extent - causing a further decline in ^{their} levels of living. However, the rates of interest were higher when no security was pledged - though not so when the loan were taken from friends and relations; but 9.5 percent of the sample households who borrowed had to pledge as security either ornaments, land or any financial bond - with harsh penalties in case of failure to repay timely instalments.

6.27 On falling on bad days due to unemployment, illness, calamity, loss of an earner etc. the dependence was based on either the insurance, and provident fund or on inherited or owned property and ornaments. Nearly one fourth of the slum and squatter households relied on 'insurance and provident fund', 30 percent, on inherited or owned property, and 4 percent, on ornaments. But nearly 39 percent of the slum households and 52-53 percent of the squatter households did not have any security to pledge or did not pledge.

6.28 Thus, in terms of levels of expenditure levels, savings and savings propensity, accumulated savings the squatter households were not that well-off as were the slum households. Again, in regard to borrowings, rates of interest and absence of social security in times of difficulties, the squatter households were on more precarious level than the slum households.

Table-6.18: Bases of Social Security available to Slum and Squatter Households in Kanpur City.

Sl. No.	Types of Base of Security	Slum House- holds	Squatter House- holds.	Total
(1)	(2)	(3)	(4)	(5)
1. Insurance		125 (15.6)	13 (6.5)	138 (13.8)
2. Provident Fund		77 (9.6)	21 (10.5)	98 (9.8)
3. Inherited or own Property		240 (30.0)	59 (29.5)	299 (29.9)
4. Ornaments		46 (5.8)	2 (1.0)	48 (4.8)
5. No Security		312 (39.0)	105 (52.5)	417 (41.7)
<u>Total</u>		<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Note: Figures within brackets indicate percentages.

Effluent
Table 6-13



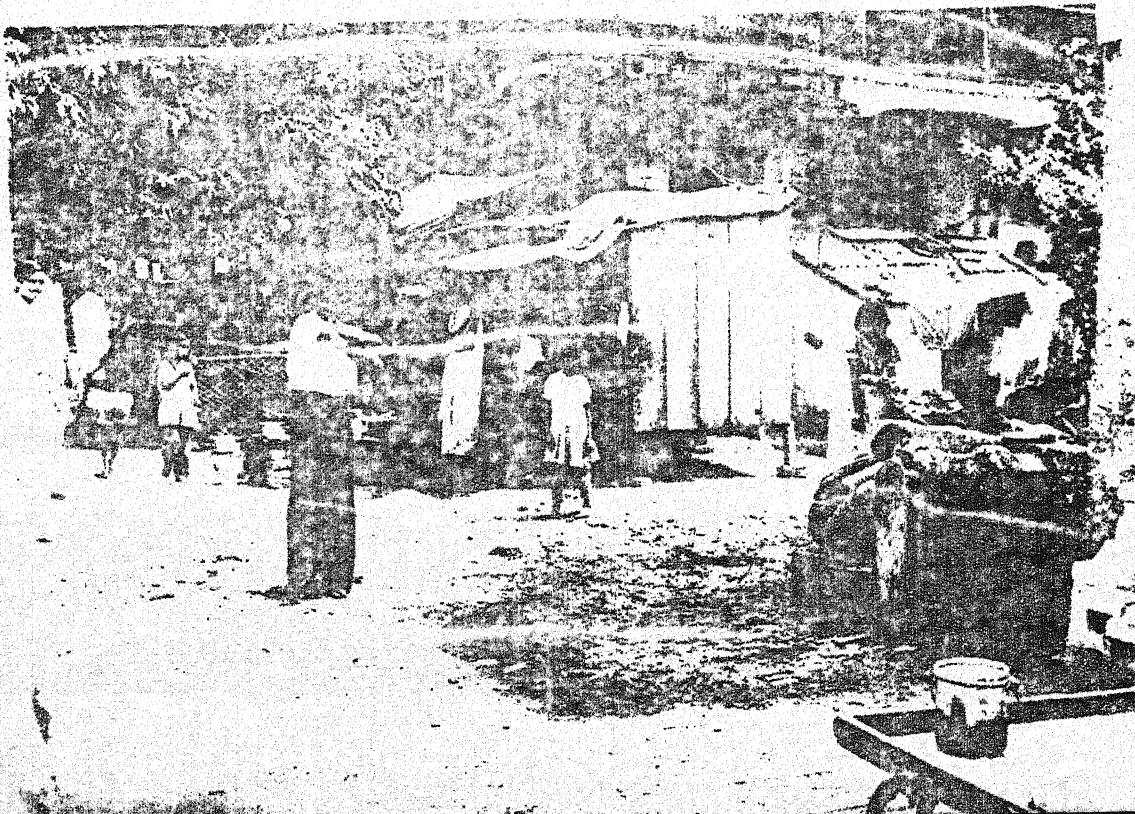
PHOTO PLATE
SQ. 3

S.Q.3

Unauthorised 'kutcha' wooden squatter settlements on public land outside municipal limits in Civil Lines in the fringe areas of Kanpur.

S.Q.4

Unauthorised 'kutcha' wooden squatter settlements on Public land also under and around a Public Bridge along with open washing and bathing (in canals) (at the entrance of Daryaganjpur Slum in Kanpur.)



SQ. 4.

PHOTO PLATE
SQ.4



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Low-income families were a small-sized family, and high-income families large-sized family. But, in all income-classes, the average non-migrant family was larger in size - followed downwards by pre-1940 migrants, having medium-sized family; and in smaller family-size in case of post-1940 migrant families. However, in all income classes, per-capita incomes of the non-migrants were lower and that of migrants higher - along with further higher income for new and newer migrants; 'poverty line', in 1950's, related to per capita income below Rs.50 per month in Kanpur city - in the background of above 57 percent of families having per capita income 'upto Rs.30 per month'. (Paras 6.01-6.02).

According to mid-1970's I.I.P.A. Survey, average size of the slum households was 5.44 persons and that of squatter households, 4.34 persons. Out of 4,195 slum dwellers, 50-51 percent were illiterate and in case of 868 squatters, 66.5 percent were illiterate; primary level education was for 26.4 percent and 21 percent of slum and squatter settlers; middle level, for 13.7 percent and 8 percent respectively; and 'high school and above' level for about remaining 9 percent and 5 percent. Employed work force, in slum areas formed 24.6 percent of the population; and in squatter area 32.5 percent; illiterate workers formed 44 percent. However, out of 91 intermediate-level, 44 graduate-level and 24 above graduate-level potential workers, Unemployed were 61, 25, and 9 respectively representing 67%, 57% and 37.5 percent, demonstrating a very high level of unemployment for educated persons in cities - 'a bane of developing countries'. It also flows that about 70 percent of the slum and squatter workers are below 'poverty line'. Amongst slum-dwelling workers 47.6 percent were employed in the 'secondary sector' and 44 percent of the squatter-dwelling workers; 47.6 percent and 51.8 percent respectively in 'tertiary sector'; and only 3-4 percent in the 'primary sector'. (Para 6.03-6.13).

Arising out of the factors stated in the above paragraph, the households according to eight expenditure classes ('upto Rs.100', Rs.101-150, Rs.151-200, Rs.201-250, Rs.251-300, Rs.301-500, Rs.501-1000, and 'over Rs.1000'), only 9 percent belong to last five income classes, 42 percent, in next above two classes, and 49 percent 'below Rs.250 p.m. However, the out of above three percentages, for the 'first two' proportions were higher for slum-households and lower for squatter households. There was more inequity for squatter dwellers as compared to slum dwellers and for both as compared to all the Kanpur residents as also the India's urban population. The expenditure levels

were low because of low-incomes - the savings of the slum and squatter households were also low; only 491, out of 1000 households were 'savers': 409 from slum area and 82 from squatter area - being 51 percent in slums and 40 percent in squatter settlements. Use of institutional agencies by the 'savers' was also 'very low', and self possession of the savings was highly motivated along with savings in 'insurance and provident funds'. Accumulated savings above 'Rs.250/- and above' were by only 20 percent of households out of 446 total savers (Paras 6.14-6.20).

Low income slum and squatter households had to borrow, but it depended on credit-worthiness; therefore, only 213 households could currently borrow - though cumulative number of borrowers was 565 (or 56.5 percent), but only 3-4 percent had indebtedness of 'Rs.250/- and above'. The borrowing mainly emanated on account of fund shortages in current expenses social (birth, marriage and death) ceremonies, illness, travel, business etc. - the chief factor was 'fund shortages in current expenses' because income-levels were very low followed by 'ceremonies', illness and business. Reliance for borrowing had a bent towards money-lender, friends, employer, grocer, and institutional system accompanied by pledging property. The last source was almost non-existent, and the first (that is, money-lender) was catered by 40 percent of the borrowers (where perhaps the interest rate ranged as high as '25-100 percent or more'). (Paras 6.21-6.28).

Chapter-VII: Health and Planned Parenthood

7.01 Income levels, standard of diet, housing conditions, quality of sanitary services, supply of potable water, and public health, etc. determine, the health standards. In general, haphazard growth of Kanpur city in the wake of growth in industrialisation and waves of rural-urban migration developed slums in Kanpur. In the slums, 30 years before, the slum population was 81,825- living in 455 ashrams/tenements, having 33,385 rooms; then the slum population constituted one-fifth of the total population of the city. Presently, in 1976-77, one-third or more of the Kanpur city lives in slums and squatter settlements in more dilapidated houses, in less number of rooms and poorer sanitation facilities of latrines and sewerage system. The ill-health and mortality rates were frequent 30 years back also - and the diseases which took larger toll were respiratory diseases, pulmonary tuberculosis, enteric fevers, cholera, dysentery and other fevers. Supply of potable water was a far cry. The conditions did not improve in harmony with the growth in slum and squatter population in the city. Resultantly the frequency of diseases did not perceptibly decline - though the number of hospitals/dispensaries did increase.

7.02 Earlier in mid-1950's, about 38 percent of the diseased people went to public hospitals/dispensaries, and only 37 percent to private clinics¹⁾. But according to the present 1976-survey - perhaps due to decline in the hospitable attendance, the proportion of the visits by the people to the public hospitals/dispensaries, remained static at 38 percent notwithstanding the State Health Insurance Corporation facilities. Consequential reaction, the proportion rose to 56.4 percent in favour of private doctor/clinics and to Vaidya/Hakim/Homeopath 5.3 percent

1) Refer to D.N. Majumdar: Ibid, page 110.

, in case of slum and squatter households, further impelling factors that attracted the people to private doctors/clinics were (a) easy approach, (b) less costly; (c) nearness; (d) saving of time, (e) better treatment, etc.

Table-7.01: Dependence on Public Hospitals and Private Clinics by the Slum and Squatter Household in Kanpur City.

Sl. No.	Treatment of Consulting Facilities	Slum Households	Squatter Households	Total
1.	Private doctor/ clinic	436 (54.6)	128 (64.0)	564 (56.4)
2.	Public Hospital/ Dispensaries	320 (40.0)	63 (31.5)	383 (38.3)
3.	Vaidya/Hakim Homeopath	44 (5.5)	9 (4.5)	53 (5.3)
	Total	800 (100.00)	200 (100.00)	1000 (100.00)

Note: Figures within brackets show percentages vertically.

8.03 The continuous ill-health affects a larger proportion of slum households than the squatter households - the proportion of continuous ill-health is 15.5 percent for slum households and 11.5 percent for squatter settlements. The total households who continuously have had some illness were 147 (out of 1000 sample households): 124 slum households and 23 squatter households. Out of 147 sick cases, highest frequency, in general, has been in smaller Ahata clusters and lower in bigger-sized Ahatas, but this has tendency of moving up when the size of the Ahatas is biggest, that is, '1000 persons and more'. For example, in case of slum and squatter households, respectively the proportion of 'continuous illness' turned out at 30.6 percent and 30.4 percent in Ahatas of population 'upto 50 persons' since in small ahatas the civil services and dispensaries were almost non-existent and the income levels of the residents were largely at a low level. Broadly, the percentages declined

Table-7.02: Frequencies of continuous Illness in the Slum and Squatter in Kanpur City.

Sl. No.	Cluster Size of Ahatas	Slum Households (3)	Squatter Households (4)	Total (5)
(1)	(2)	(3)	(4)	(5)
1.	upto 50	.38 (30.6)	7 (30.4)	45 (30.6)
2.	51-100	23 (18.5)	3 (13.0)	26 (17.7)
3.	101-200	28 (22.6)	4 (17.4)	32 (21.8)
4.	201-500	11 (8.9)	4 (17.4)	15 (10.2)
5.	501-1000	5 (4.0)	1 (4.4)	6 (4.1)
6.	Above 1000	19 (15.4)	4 (17.4)	23 (15.6)
<u>Total</u>		<u>124</u> (100.00)	<u>23</u> (100.00)	<u>177</u> (100.00)

Note: Figures within brackets indicate percentages.

(except for Ahatas of 101-200 persons) to 4.0 percent and 4.4 percent as the population rose in the 5th Ahata category of "501-1000 population". But the proportion reversed upwards in Ahatas of '1000 persons and above' to 15.4 percent and 17.4 percent in case of slums and squatter households respectively-probably because of rise in overcrowding and increasing pressure on the essential and community civil services which were already over-pressurised and many at the point of break-downs.

7.04 Outbreak of epidemics, quite often, takes a heavy toll- and more so of those who live in slum areas under the stress and strain of low-incomes and who as well suffer from the absence of various civic amenities and overcrowding in miserable houses with unhealthy environs. In mid-1950's, slum households formed 24.23 percent of a sample of 4914 city households (in D.N. Majumdar's Survey) and their proportion is now 35 percent of total households of Kanpur city. At that time, 90 percent had 'kutcha' houses; 65 percent did not have regular outlets of drains;

overcrowding had reached to 800 persons/being six times of the maximum accepted standard then; on an average there were about 2.5 persons per room-though sometime per room density even rose to 32 persons; against a birth rate of 31 per thousand the death rate was 24.9 per thousand (or 0.6 percent/^{growth} per thousand per annum) and infantile mortality of 248 per 1000.

7.05 Nonetheless, /the frequency of epidemics has been arrested because of various wide-scale preventive measures undertaken by the public authorities - through anti-cholera, anti-malaria DDT operation, and small-pox inoculation, etc. Amongst the 1000 slum squatter households, only 38 cases occurred in last three years of the epidemic's outbreak; and 7 amongst squatter households. Again out of 45 total cases, nearly 47 percent were affected by cholera (which could be easily curable); and about 38 percent by small-pox; and only 15 percent by malaria. Probably the 43 births occurred in 33 households and 67 percent of households did not have any births amongst 800 households. So also the death rates were lower - being about 10 in three years. It roughly amounts to 33 net birth for 800 households (representing 4500 persons) or 0.75 percent increase in 3 years per thousand or 0.25 percent per annum per thousand as compared to about 0.6 percent per annum per thousand in mid-1950's. This fact, tells a dreadful decline in net natural growth of population in slum areas. But the condition, as reported by the Chief Medical Officer (Health) of Kanpur Municipal Corporation, according to data, do not seem to be better in any way where registered births, in 1975, were 22,910 - of which 396 were still-births; deaths, 21,471 (including 8,879 children who had not attained one year's age). Thus, birth and death rates were 1.5 and 1.4 percent and natural growth only 0.1 percent. It ^{also} comes out that the birth and death rates were lower in the slum and squatter settlements.

Does this mean that the population had become immune (or proof against diseases and epidemics) due to slum-way of life? Conclusively, it appears that whatever net-increase occurred in Kanpur was primarily due to in-migration of the persons from other parts of the State and other regions of the country.

7.06 The general bent, of the aggregate of slum and squatter households, is more aligned to planned family size, since only 20 percent of the 1000 sample household desired more than 3 children and 46.5 percent desired upto 3 children, 27.5 percent desired two and those who desired 'one child' and 'none' constituted 3 percent each (See Table 7.03). The differences are noticeable on planned family size between slum and squatter households; for example squatter households proportion in favour of three children was 42.5 percent as against 47.5 percent for slum households; and a higher proportion for more than 3 children of 23 percent by squatter households as against 19.4 percent for slum households, through vasectomy, tubectomy, pills, nirodh, and loop. Rest of the households might have followed abstinence methods; this impression and image are further based on the opinion of about two-thirds of households who believe that a small family is a source of 'happiness'; and 18 percent felt that it also brings about better attention to and development of children. Nevertheless 17 percent felt that planned family size is not very meaningful.

7.07 As an inference one gets to believe that a healthy view by a large proportion of the households, in regard to planned parenthood, has been a plausible factor to effect decline in the birth and death rates in the slum and squatter settlements; and this in itself provides a hope for the future. Though only 22 percent of the households used modern methods of planned family the awareness was also rooted amongst households about planned parenthood since more than 6 percent indicated awareness.

Table-7.03: Views expressed by the Slum and Squatter Households about having a certain number of children in Slum and Squatter Settlements.

Sl. No.	Number of children desired	Slum households	Squatter Households	Total
(1)	(2)	(3)	(4)	(5)
1.	None	20 (2.5)	9 (4.5)	29 (2.9)
2.	one	24 (3.0)	6 (3.0)	30 (3.0)
3.	two	221 (27.5)	54 (27.0)	275 (27.5)
4.	three	380 (47.5)	85 (42.5)	465 (46.5)
5.	More than 3	155 (19.4)	46 (23.0)	201 (20.1)
Total		800 (100.00)	200 (100.00)	1000 (100.00)

7.08 Earlier in mid-1950's in regard to the desires of the mothers to have a certain number of children those wanting to have 'more than three children' were 50.42 percent in Kanpur city - and the percentages for those wanting to have 'more than three children' unexpectedly rose with the rise in income levels of the households - as shown below in Table-7.04. This comparatively shows a higher proportion of pragmatic wisdom than that in mid-1950's.

Table-7.04: Number of Children Desired by the income-levels in mid-1950's.

Income p.m. (Rs.)	No. of women wanting less than 3 child- ren.	No. of Women wanting more than 3 child- ren.	Total
(1)	(2)	(3)	(4)
Upto Rs.50	141 (52.80)	126 (47.19)	267
51-100	279 (48.52)	296 (51.47)	575
101-200	91 (51.41)	86 (48.58)	177
Over 200	32 (42.10)	44 (57.89)	76
Total	543 (49.58)	552 (50.42)	1095 (100.00)

Source: D.N. Majundar - Ibid, page 197 Table IV.

S U M M A R Y

In Kanpur city, slum (and squatter) population at the end of 1960's was around 20 percent; 24-25 percent, in mid 1950's; 50 percent in early 1970's and about 35 percent in mid-1976. This in turn, brought 'overcrowding', such poorer or 'nil' levels of infrastructure of essential and community services, more frequent incidence of diseases, ill-health, high general and infantile mortality rates. Poor attendance at the dispensaries/hospitals, the sick people turned more to private clinics - because of easy approach, larger charges, neatness, saving of time, better attendance, etc.

However, the incidence of sickness was lesser in squatter colonies as compared to slum colonies; and more in 'small' and 'bigger-sized' 'Ahata's' - and better health in intermediate-sized Ahatas - notwithstanding the 90 percent housing stock being 'kutcha' and poor essential and community services. Birth and death rates had declined to 1.5 percent and 1.4 percent respectively - making natural growth rate 0.1 percent; whatever net increase in population occurred was primarily from in-migration.

General rent of the slum and squatter households have moved in favour of planned parenthood in mid-1970's, as only 20 percent desired 'more than three children' - for which the proportion was about 50 percent in mid-1950's. Two-thirds of household realise that a small family is a fountain head of happiness, though only 22 percent of the households used modern methods of planned family. But it was perhaps due to practice of 'abstinence' followed perhaps by a larger number of households.

Chapter-VIII : Transport Facilities¹⁾

8.01 In conditions of overcrowding and limited alternatives of transport system, there is often a situation of congestion in traffic on roads - with shortages in road mileage in Kanpur city - is having an out-dated and inadequate of transport facilities for the movement of the working population as well as school-going children. Even after Independence in 1947 the observations made by the Kanpur Development Board are measurably relevant on the eve of 1950's: "most of the network of roads in Kanpur is a medieval arrangement ill-suiting the volume, intensity and variety of traffic in modern conditions. Narrowness and insufficiency of roads, sideway encroachments, meagre provision of footpaths, absence of parking places for vehicles, and railway-level crossings on important roads render traffic clearance difficult, delays and hazards." Number of buses in 1954-55 was only 41, and tonga, ekka, and cycle rikshaws were the main modes of internal transport - numbering around 250, 1200, and 2500 respectively. No taxi-system was available. At that time, 65 percent of households lived within a distance of 100 yards from main roads, 20.6 percent within distance of 100-200 yards; and 12 percent, at a distance of 220 yards to 660 yards - and therefore transport was needed hardly by less than 10 percent of the households. However, in 1970 the situation was changed sizeably.

8.02 In the slum settlements, 328 households (or 41 percent of the 800 sample households) and 102 (or 51 percent of 200 squatter households) do not spend any amount on 'transport'. But those households who spend 'upto Rs.5' per months, the respective proportion for slum households and squatter households being 17.5 percent and 13 percent; 'between Rs.6-15', the percentages are 22.6 percent and 24.5 percent; 'between Rs.16-25', 12.1 percent and 4 percent; 'between Rs.26-50', 5.6 percent and 6.5 percent;

1) Refer to Questions 31.0-35.1 of the Interview Schedule.

and 'between Rs.51-100', 1 percent and 0.5 percent; and 'above Rs.100', 0.3 percent and 0.5 percent. At the level of Rs.6-25, the proportion of households for slum and squatter households were respectively 34.7 percent and 28.5 percent - and these may be called middle-income households; those households who 'did not spend' or 'upto Rs.5/-' aggregate to 58.5 percent in slum settlements and 64 percent, in squatter settlements; and those households who paid 'Rs.26-100 and over' formed 7.8 percent in slum settlements and 8.5 percent in squatter settlements. (For details see Table 8.01).

Table-8.01: Transport Expenses incurred by the Slum and Squatter Households in Kanpur city in mid-1976.

Sl. No.	Expenses per month (in Rs.)	Slum House- holds	Squatter house- holds	Total
I	Nil	328.	102	430
II	upto Rs5 (Low- income)	58.5% (41.0) 140 (17.5)	64.0 (51.0) 26 (13.0)	(43.0) 166 (16.6)
III	6-15	34.7% (middle income)	181 (22.6)	49 (24.5)
IV	16-25	97 (12.1)	28.5 (8) (4.0)	105 (10.5)
V	26-50	45 (5.6)	13 (6.5)	58 (5.8)
VI	51-100 (High income)	7 (0.9)	8.5 (1) (0.5)	8 (0.8)
VII	over Rs100	2 (0.3)	1 (0.5)	3 (0.3)
<u>Total</u>		800 (100.00)	200 (100.00)	1000 (100.00)

9.03 According to 'Ahata' cluster sizes of the slum and squatter settlements the data are presented in Table 9.02, which broadly indicates that proportions of low income households were higher in the smaller clusters and lower in case of bigger clusters. It is clear that the transport expenses are more inequitable in case of squatters- but it

Table-8.02: Distribution of Slum and Squatter Households according to cluster sizes of Ahatas and their Transport Expenses capacity per month.

Sl. No.	Ahatas Cluster Sizes (Popula- tion)	Transport Expenses per month			Total	% (%)
		upto Rs.5 (or low- income) house- holds	between Rs.6-25 (middle- income) house- holds	Rs.26-100 & over (High- income) households		
(1)	(2)	(3)	(4)	(5)	(6)	
Slums						
I	upto 50	185 (59.0)	105 (33.6)	23 (6.4)	<u>313</u> (100.00)	(39.1)
II	51-100	92 (59.4)	54 (34.8)	9 (5.8)	<u>155</u> (100.00)	(19.4)
III	101-200	64 (55.6)	44 (38.2)	7 (6.2)	<u>115</u> (100.00)	(14.4)
IV	201-500	50 (60.0)	29 (34.5)	5 (5.6)	<u>84</u> (100.00)	(10.5)
V	501-1000	34 (74.0)	6 (13.0)	6 (13.0)	<u>46</u> (100.00)	(5.8)
VI	over 1000	43 (49.4)	40 (46.0)	4 (4.6)	<u>87</u> (100.00)	(10.8)
	Total	468 (58.5)	278 (34.7)	54 (6.6)	<u>800</u> (100.00)	(100.00)
Squatters						
I	upto 50	65 (69.7)	19 (19.9)	10 (10.4)	<u>94</u>	(47.0)
I	51-100	11 (55.0)	9 (45.0)	-	<u>20</u>	(10.0)
II	101-200	12 (54.5)	7 (32.8)	3 (12.7)	<u>22</u>	(11.0)
IV	201-500	21 (60.0)	12 (34.3)	2 (5.7)	<u>35</u>	(17.5)
V	501-1000	10 (66.7)	5 (33.3)	-	<u>15</u>	(7.5)
I	over 1000	9 (64.3)	5 (35.7)	-	<u>14</u>	(7.0)
	Sub-Total	<u>128</u> (64.0)	<u>57</u> (28.5)	<u>15</u> (7.5)	<u>200</u> (100.00)	(100.00)
	Grand Total	596 (59.6)	335 (33.5)	69 (6.9)	1000 (100.00)	

could be that they might not be very much away from their work-places or dispensaries or from the educational institutions of their children. Nonetheless, the expenses' capacity is lower on transport size for a larger number of squatter households as the Ahata cluster size becomes bigger - which in itself provides for employment potential as also for the setting up of the dispensaries and educational institution within the Ahata or very near it.

9.04 The mode of transport used/hired largely depend on the distance from the home to the work-place/school/dispensaries/market place/post-office/bank. The data as emerging from the survey indicate these aspects are tabulated in Table 8.03 and the analyses in paragraphs 9.04 to 9.10. From the settlements, the work-places both for slum and squatter households is upto 1 km. for 58 percent; between 1-3 km., for 23.4 percent and 12.5 percent of slum and squatter households respectively; between 3-5 km., for 12.1 percent and 13.5 percent of slum and squatter households respectively; and above 5 km. for 9.6 percent and 13.5 percent of slum and squatter households respectively. However, it is 81.5 percent of the slum households who have to travel between $\frac{1}{2}$ - 3 km., to reach the work places whereas the squatter households' proportion is 71 percent; in consequence, it is only 18.5 percent of the slum households have to travel for reaching to work-places between 3-5 km. and above as against, 29 percent of the squatter households.

8.05 For negotiating to reach the school/college, respectively 49.5 percent and 52 percent children/^{respectively} of the slum and squatter households have to travel only upto $\frac{1}{2}$ km.; and for 30.8 percent slum households and 23 percent squatter households, between $\frac{1}{2}$ -1 km. Thus it follows that 83.3 percent of the slum households' and 75 percent of the squatter households' children reach schools by travelling upto 1 km. only, but in all 96.8 percent of school/or college

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Table-8.03: Distances from Home to (1) work-place; (2) School; (3) Dispensary/Hospital; (4) Market place; (5) Post-office; and (6) Bank- for Slum and Squatter Households in Kanpur City as in mid-1976.

Sl. No.	Distance from Home Ser- vices available	Km.						Total
		$\frac{1}{2}$ k.m.	$\frac{1}{2}$ -1	1-3	3-5	Above 5	No response	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I Work Place								
No.(1) Slum dwellers	270 (38.8)	155 (19.4)	187 (23.4)	97 (12.1)	77 (9.6)	14 (1.7)	800 (100.00)	
" (2) Squatters	92 (46.0)	25 (12.5)	25 (12.5)	27 (13.5)	27 (13.5)	4 (2.0)	200 (100.00)	
II School/ College								
No.(1) Slum dwellers	396 (49.5)	246 (30.8)	132 (16.5)	13 (1.6)	13 (1.6)	-	800 (100.00)	
" (2) Squatters	104 (52.0)	46 (23.0)	45 (22.5)	2 (1.0)	3 (1.5)	-	200 (100.00)	
III Dispensary								
No.(1) Slum dwellers	277 (34.6)	291 (36.4)	181 (22.5)	43 (5.4)	8 (1.0)	-	800 (100.00)	
" (2) Squatters	73 (36.5)	71 (35.5)	47 (23.5)	5 (2.5)	4 (2.0)	-	200 (100.00)	
IV Market Place								
No.(1) Slum dwellers	330 (41.3)	300 (37.5)	145 (18.1)	23 (2.9)	2 (0.2)	-	800 (100.00)	
" (2) Squatters	78 (39.0)	61 (30.5)	52 (26.0)	7 (3.5)	2 (1.0)	-	200 (100.00)	
V Post Office								
No.(1) Slum dwellers	276 (34.5)	340 (42.5)	150 (18.7)	25 (3.1)	9 (1.2)	-	800 (100.00)	
" (2) Squatters	77 (38.5)	71 (35.5)	43 (21.5)	7 (3.5)	2 (1.0)	-	200 (100.00)	
VI Bank								
No.(1) Slum dwellers	288 (36.0)	285 (35.6)	183 (22.9)	42 (5.2)	2 (0.3)	-	800 (100.00)	
" (2) Squatters	71 (35.6)	65 (32.5)	58 (29.0)	5 (2.5)	1 (0.5)	-	200 (100.00)	

Note: Figures within brackets indicate percentages horizontally.

going slum children and 97.5 percent of the squatter children have to negotiate distances between less than $\frac{1}{2}$ to 3 km. It is only 3.2 percent and 2.5 percent children of slum and squatter settlements travel a distance of 3-5 km. and perhaps mostly they are college-going boys - who might be cycling to institutions.

Table - 8.04: Status in respect of children of Slum and Squatter Households attending Schools.

Sl. No.	Whether attending?	Slum House- holds	Squatter House- holds	Total
(1)	(2)	(3)	(4)	(5)
1.	All attending	258 (32.3)	47 (23.5)	305 (30.5)
2.	Some attending	153 (19.1)	23 (11.5)	176 (17.6)
3.	Not attending	194 (24.2)	68 (34.0)	262 (26.2)
4.	Not applicable as no school- going children	195 (24.4)	62 (31.0)	257 (25.7)
<u>Total</u>		<u>800</u> <u>(100.00)</u>	<u>200</u> <u>(100.00)</u>	<u>1000</u> <u>(100.00)</u>

Note:- Figures within brackets indicate percentages vertically.

Nonetheless, nearly 24 percent of the slum households' children and 34 percent of squatter households' children do not attend the school; in case of 19 percent and 11.5 percent of slum and squatter households respectively, only some attend; 24.4 percent of slum households and 31 percent of the squatter households do not have school going children and only the children of 32.3 slum households and 23.5 percent squatter household attend schools. In effect, the ^{and inconvenience} rigour of distances vis-a-vis transport facilities are almost non-existent for school/college going children.

2) It was found that in all from 535 households' children (422 slum households* 113 squatter households) did not attend the schools - of which 54.4 percent on account of financial difficulties, and 22.8 percent were not interested in sending the children to the school; 6 percent on account of health reasons and another 6.1 percent because they worked at home; and 8.5 percent were earning money; and 2.2 percent either did not get admission in the school or the school was far away.

8.06 Nearly 71-72 percent of the slum and squatter households can reach the hospitals/dispensaries by travelling upto $\frac{1}{2}$ -1 km. instance - divided almost half and half upto a distance 'upto $\frac{1}{2}$ km.' and $\frac{1}{2}$ -1 km.; and 22.5 percent of the slum households and 23.5 percent of squatter households travel between 1-3 km., however if they do not have their own conveyance - the cost of travel to take a patient to the hospital might become quite unbearable. Rest of the 6.4 percent of the slum households and 4.5 percent of the squatter households have to make a journey of '3-5 km' to seek medical aid.

8.07 For shopping, the market places for nearly 80 percent and 70 percent respectively for the slum and squatter settlements, the distances are within 1 km - of which more than half have to travel less than $\frac{1}{2}$ km; 18.1 percent of slum households and 26 percent of squatter households, travel 1-3 km.; and 3.1 percent and 9.5 percent respectively of the slum and squatter households travel 3-5 km.

8.08 Post-office services to 77 percent of the slum dwellers and 74 percent squatters are available within 1 km. distance; this is important after 'pay-day' to remit some funds by money-orders to the relations in the rural/native places. For 18.7 percent of the slum households and 21.5 percent of squatter households to reach post-offices the distance is 'between 1-3 km'.

8.09 For 71.6 percent of the slum inhabitants and 68 percent of the squatters the distance to the bank(s) is 'upto $\frac{1}{2}$ -1 km'; for 23 percent of the slum-dwellers and 29 percent of squatters, 1-3 km; and respectively for 5.5 percent and 3 percent of slum and squatter residents between 3-5 km.

8.10 In brief, in 1976, for nearly two-thirds to three-fourths (or even four-fifths) of the slum and squatter households the distances for obtaining the services of educational institutions, hospitals/dispensaries, shopping, post-offices, and banks were available within a distance of one kilometre. However the percentage both for slum-dwellers and squatters was 58 percent for reaching to work-places.

S.11 Whether the slum and squatter households, the migrants in a metropolis are altitudinally inclined to stay on at a latter place and wish to make the city as a permanent point of living and life style, can be partly (and/a large extent) judged by their propensity to establish an immovable property in the city and/or severing their connection with the native place through owning or continuing to hold immovable property in the native place. It emerged that out of 1000 total sample of slum and squatter households 70 percent have no immovable property in Kanpur - and the same percentages almost hold ^{good} for the slum households as also squatter households. On the other, those who hold property 'outside Kanpur' about 8 percent, have a property valued 'over Rs.5,000; 7.4 percent, between Rs.3001-5000; 5.8 percent, between Rs.1001-3000; and 8 percent, 'upto Rs.1000'. (See Table-8.05). Again those ^{who} expressed individually that they have settled in Kanpur, formed 79.4 percent amongst slum households, and 78 percent amongst the squatter households - and only about 20-22 percent have not settled in Kanpur. From the data of Table 9.05 and the foregoing sentence, an inference springs that out of nearly 790 (or 79 percent) of total slum and squatter households having settled in Kanpur permanently, about 300 (30 percent) had immovable property of different values and remaining 49 percent (or 490 households) did not have immovable property in Kanpur.

Table-8.05: Slum and Squatter Households and their holding immovable property of certain Values in Kanpur City.

Sl. No.	Value of Property	Slum House- holds	Squatter House- holds	Total
(1)	(2)	(3)	(4)	(5)
1. No Property	646 (80.8)	143 (71.5)		789 (78.9)
2. Upto Rs1000	25 (3.1)	33 (16.5)		58 (5.8)
3. Rs.1001-3000	28 (3.5)	9 (4.5)		37 (3.7)
4. Rs.3001-5000	36 (4.5)	7 (3.5)		43 (4.3)
5. Above Rs.5000	65 (8.1)	8 (4.0)		73 (7.3)
<u>Total</u>	<u>800</u> <u>(100)</u>	<u>200</u> <u>(100)</u>		<u>1000</u> <u>(1000)</u>

Note:- Figures within brackets indicate percentages vertically.

8.12 Though 45-46 percent of the slum and squatter households do not have any close relations outside Kanpur, 33-37 percent do not remit any funds to relations or friends outside Kanpur; it is only about 16-22 percent who remit money outside Kanpur. From this it also flows that those who do not have any relations or do not send money - almost all of them have more or less have decided to settle in Kanpur - and rest around 20 percent are still in a fluid state about their settlement place - a phenomenon already observed in the earlier paragraph -8.11.

S U M M A R Y

Overcrowding and poor and out-dated transport facilities along with shortages in road-mileage, congestion in transport causes inconveniences for negotiating from residence to work places, schools, dispensaries, shopping centres, post-office and back. The cost of transport expense, in 1976, ranges 'upto Rs.5' p.m., for about 60 percent of slum and squatter households; 'between Rs.6-25' p.m., for about 33-34 percent of the households; and 'between Rs.26-100' p.m., for about 7 percent of the households.

Nearly for two-thirds to three-fourths (or even four-fifths) of the slum and squatter households, for availing the transport services, educational institution, hospitals, market place, post and banking offices the distances are of less than one kilometre; however, the work places to a distance within one kilometre, is for only about 58 percent for both the slum and squatter households.

Immobility from Kanpur or otherwise is largely dictated by owning or not owning immovable property in the city or in native place. Though 70 percent of the households do not have immovable property in Kanpur and only about 28-29 percent hold property outside Kanpur, yet nearly 80 percent have attitudinally decided to settle in Kanpur.

Remittances to relations from Kanpur to native places is practised by only about 16-22 percent of slum and squatter households.

Chapter IX: Attitudes of the Slum and Squatter Households to Programmes of Improvement and Clearance of the Ugly Spots in Slum and Squatter Settlements¹⁾

9.01 The Slum Clearance and Improvement Scheme under the quinquennial plans commenced in 1956 - and some modifications were introduced from time to time in the light of experience gained while implementing the schemes in different states. It appeared that out of 1000 sample households, 616 (or 61.6 percent) were aware of the scheme (though the scheme had meandered a time distance of 20 years); however, the proportion was 56.5 percent amongst squatter households and 63 percent amongst slum households.

9.02 In order to effect improvement of slum clusters, in many cases, it becomes necessary to effect moving away of some or all of the households from a part of the clusters or a large number of them. This raises problems in various ways - based on different reasons or an amalgam of reasons. However, it appeared that 68.8 percent of the 1000 sample households were willing to be shifted and only 32.9 percent (or about one-third) were not willing to shift motivated by various single reason or overlapping reasons as shown under Table 9.01. Out of 1000 households, 214 were not-inclined to shift to avoid the risk of "dislocation of work-link"; 62, to ward off "dislocation of community link"; 43, to eliminate the 'risk of dislocation of childrens' education, etc.'; 74, because of 'general apathy towards shifting'; 61, due to lack of interest in facing new problems in a new environment; 15, to avoid the increasing distance from hospital/dispensary; 9, to obviate marketing inconveniences; and 30, for not inviting the risk of not getting transport facility. However, 698 households, did not visualise any difficulty arising out of shifting to the new area. From the above, it arises that the three factors (namely, dislocation in work-link, community link, and education of children) were most important which discouraged households

1) Refer to questions from 36.0 to 39.1 of the Interview Schedule.

to shift. But the bold fact is that 688 households did not conjured any inhibitions to shift and this operated for 774 households without overlapping reasons to shift in better houses.

Table- 9.01: Overlapping reasons by Slum and Squatter Households for not shifting away from current Slum and Squatter Settlements.

Sl. No.	Reasons for not shifting	Slum House- holds	Squatter House- holds	Total
(1)	(2)	(3)	(4)	(5)
1.	Dislocation of work-link	160	54	<u>214</u>
2.	General apathy to shift	65	9	<u>74</u>
3.	Dislocation in community-link	50	12	<u>62</u>
4.	Lack of interest in joining to new environment	55	6	<u>61</u>
5.	Dislocation in the education-link of children.	35	8	<u>43</u>
6.	Difficulty to get transport	28	2	<u>30</u>
7.	Distance from hospital/dispensary	10	5	<u>15</u>
8.	Distance of Market	5	4	<u>9</u>
<u>Total</u>		<u>408</u>	<u>100</u>	<u>508</u>

9.03 Only 10-11 percent of the slum and squatter households were willing to go out of Kanpur - if other and better living facilities were available in new surroundings. Above all quite many of these 10-11 percent households had chiselled their courage and developed the fortitude to face problems and solve them as they come. Impelling factors not to go out of Kanpur mainly being the 'risk of not getting the job in new place', followed by the risk of (1) 'no house to live in', (2) hope of prospective employment opportunity for the children at present location; and (3) hope for the flourishing business at present location. (See Table- 9.02)

Table- 9.02: Impelling but overlapping Factors discouraging going out of Kanpur - 10-11 percent of Sample Slum and Squatter Household.

S1. No.	Reasons mostly overlapping	Slum House- holds No.	Squatter House- holds No.	Total No.
(1)	(2)	(3)	(4)	(5)
1.	Difficulty in getting job/ work.	380	127	507
2.	No house to live in	150	25	175
3.	Inhibition in favour of living in Kanpur.	126	40	166
4.	Hope for children getting employment in Kanpur.	62	20	82
5.	Hope for flourishing	55	18	73
6.	Risk of Education for children.	50	19	69
<u>Total</u>		<u>823</u>	<u>249</u>	<u>1072</u>

Rent
Paying
Capacity

9.04 In relation to 'rent paying capacity' of the households responses were, however, more encouraging for getting better houses (in terms of location, space, civil facilities etc.). Though 219 households (that is, 185 slum households and 34 squatter households) had no inclination to shift, 401 (or 40.1 percent) were prepared to move in a better house with monthly rent-level between Rs.11-25; 195 were ready to move with monthly rent-level between Rs.6-10; 113 were prepared to move, with monthly rent-level between Rs.26-50; and 49 were inclined to move to houses with monthly rent-level upto Rs.5. Specifically within rent level of Rs.11-25, the proportion were approximately identical/ for slum and squatter households. The proportion, however, for slum and squatter households fluctuated sizeably - these being 4.4 percent and

7 percent, respectively in the rent level 'upto Rs.5, 17 percent and 29.5 percent, in the rent-level between 'Rs.6-10'; 12.9 percent and 5 percent, in the rent-level 'in the rent level above Rs.50' 'Rs.26-50'; and 1.8 percent and 1 percent. It shows that the rent paying capacity is lower for squatter households which includes only 44.5 percent of households in the wide range of Rs.11-50 per month - as compared to 53.2 percent of slum households. (See Table- 9.03)

Table- 9.03: Potential for rent-paying capacity of Slum and Squatter Households in Kanpur City according to classified rent-levels.

Sl. No.	Readiness to pay rent ranges (Rs)	Slum House- holds No.	Squatter Households	Total
(1)	(2)	(3)	(4)	(5)
1. upto Rs.5	35 (4.4)	14 (7.0)	49 (4.9)	
2. Rs.6-10	136 (17.0)	59 (29.5)	195 (19.5)	
3. Rs.11-25	322 (40.3)	79 (39.5)	401 (40.1)	
4. Rs.26-50	103 (12.9)	10 (5.0)	113 (11.3)	
5. Above Rs.50	14 (1.8)	2 (1.0)	16 (1.6)	
6. Don't like to move or can't afford	190 (23.7)	36 (18.0)	226 (22.6)	
<u>Total</u>	<u>800 (100.00)</u>	<u>200 (100.00)</u>	<u>1000 (100.00)</u>	

Note: Figures within brackets show percentages vertically.

9.05 Studies to estimate the biological dwelling needs of the households help in determining the degree of desirable 'shortages in rooms' availability according to the standards of social minimum. An attempt was made to eke out this

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information by getting responses according to the attitudinal reactions of responding 1000 sample slum and squatter households. It emerged that only 4.6 percent of the households, required one-room dwelling; 38.9 percent, 2-room dwellings; 27.2 percent, 3-room dwelling; 38.9 percent, 2-room dwellings; 27.2 percent, 3-room dwelling; and 8.4 percent, more than three-rooms; and 20.9 percent of households did not want a change in the existing house/dwelling. Nonetheless, the differences in the consumer needs as given out by the individual households differed; for example, one-room dwellings preference was shown by 4.13 percent of the slum households but for squatter households it was by 6.5 percent households; 37.3 percent and 43 percent respectively in favour of 2-room dwellings; 27.3 percent and 26.5 percent in favour of 3-room dwellings; and 8.38 percent and 8.5 percent, for more than 3-room dwellings.

9.06 The proportion for one-room or two room housing needs being lower in case of slum-households as compared to squatter households is applicable on the grounds that 'one and two-member households' in the slum settlements aggregated to 16.4 percent, whereas they formed 27.5 percent amongst squatter settlements. 3-4 members households were 26.9 percent in slum settlements as compared to 36.5 percent in squatter settlements. The position in regard to 4 to 11 member households reversed in favour of slum settlements forming a total of 53.5 percent vis-a-vis 33.5 percent in squatter settlements - though in both the cases they established almost identical equivalence of proportion of about 2.5-3 percent both for slum and squatter settlements. (for details see Table-9.04).

9.07 However, under the reflection of 'demonstration effect' plus the propensity to own a house and more

acomodious house, some of the slum and squatter households also look forward to have additional room or a bigger house. Under this spell 4.6 percent, of the total 1000 sample households, wished to have additional one-room accommodation; 38.9 percent, further two-room accommodation; 27 percent, extra three-room accommodation; and 8.4 percent, '3 rooms' - and 20.9 percent expressed no need of more accommo^{dation}.

9.08

In relation to size distribution of households and the size distribution of existing (in 1976) houses there was a marked mal-distribution; for example, against '1-2 member constituting 16.4 percent of the total slum households, the 1-room houses constituted only 4.18 of the total houses; against 3-4 member 26.9 percent household, the two-room houses formed 37.8 percent of the total houses; as an inverted phenomenon, the 4-11 member 53.5 percent households, the 3-room houses were 27.8 percent; and for 11-15 member 3.2 percent households, the corresponding proportion of 3+ room houses, 8.38%.

9.09

Such a mal-distribution raises depressing qualms. However, in case of 200 sample squatter households, the situation of mal-distribution is not that alarming since the (a) 3-4 member households constituting 36.5 percent, and (b) 4-11 member households representing 33.5 percent - in aggregate of 70 percent the proportion of the houses of 2-room and 3-room are 43 percent and 26.5 - making a total of 59.3 percent of houses. In fact, there is an equilibrium. However, for the 27.5 of 1-2 member households, 1-room houses proportion is 6.5 percent; and against 2.5 percent of 11-15 member households, the "3+ room houses" are 8.5 percent. The mal-distribution of household and house sizes are in Groups 1 and 4 only for squatter households - whereas in case of slum-households it is univeral in all the four groups 1 to 4.

Table - 9.04: Proportional Distribution of Household Sizes and that of Size Distribution of Houses in Kanpur City (As in mid-1976)

Sl. No.	House hold size (No. of members)	Slum Households			Rooms	Squatter Households		
		Prop- ortion House- holds %	Propor- tion of houses accord- ing to rooms %			Propor- tion of House- holds %	Prop- ortion of houses accord- ing to rooms %	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	1-2	16.4	4.18	1	27.5	6.5	1	
2.	3-4	26.9	37.8	2	36.5	43.0	2	
3.	4-11	53.5	27.8	3	33.5	26.5	3	
4.	11-15	3.2	8.38	3+	2.5	8.5	34	

9.10 As regards the employing of the technique of 'self-help' or mutual self-help in building houses, only about 18-19 percent of the households preferred in 'affirmative' terms - whereas 81-82 percent in 'negative' terms. As revealed in reply to Q.No.33 and 34 and as explained in Chapter-VIII(Paragraph 8.11) that out of 80 percent of the households having said that they have decided to settle in Kanpur, 30 percent had some immovable property. It is, therefore, only out of the remaining 50 percent of the households, that another less than 20 percent are enthused to cooperate in building the house through self-help; and it is the remaining 30 percent, who are the lowest income weaker section, who realise that having a house by any means is beyond their reach.

9.11 Quite often, in the industrial towns, the cinema film goers are the industrial labour and weaker sections of the community - particularly on pay-day. The slum and squatter households, have yet not dramatised themselves to the modern means of entertainment, and they are still

'at home' in the indigenous culture and native inhibition of folk-lore and religious functions which nourish the soul than the material-life. With marginal variations, the proportional frequencies are almost identical; 25 percent of the 1000 sample slum and squatter households are the only edicts who go to 'cinemas' - but all others (except 2.8 percent of the households who have no interest in recreations) go to religious places/functions (47.4 percent), dramas/notankis that is, folk-lores (10.6 percent), and fairs which often confine to religious places (13.8 percent).

9.12 Social mores, political conscious professional trade union membership etc. are more pronounced in big cities; and Kanpur city is no exception to it. However, it is the Congress (Ruling) which attracted 64 percent of the slum and squatter households alike, next in importance being Communist Party (1.6 percent), Jan Sangh (0.7 percent), Bhartiya Lok-Dal (0.6 percent, and Socialist Party (0.1 percent). However, the 1977 Lok Sabha elections perhaps turned tables against Congress - and Janta Party (an alliance of Congress(O), Jan Sangh, Bhartiya Lok Dal, and Socialist Party in collaboration with Congress for Democracy, CPI(M) swayed the polls. In terms of political consciousness it turns out that about 82-90 percent of the voters amongst 1000 sample slum and squatter households voted in the last U.P. Assembly elections (in 1974).

S U M M A R Y

Attitudinally, only 61.6 percent; 56 percent amongst squatters and 56 percent amongst slum-dwellers are aware of Slum Clearance and Improvement Scheme - but only a few are not inclined to shift in Kanpur itself from their regular 'ahata' or mohalla or cluster - either due to 'dislocation in place of work' or 'break in community link', or 'inconvenience caused or children's education', or 'general apathy to shift', etc. But about 70 percent of the 1000 households are inclined to shift as they do not visualise any difficulty in shifting. Further, about 10 percent are inclined to leave Kanpur if better living facilities are available in new surroundings, since for the former 70 percent and latter 10 percent 'rent paying capacity' was encouraging to shift to better houses.

Actually as a 'consumer-reaction', less than 5 percent were inclined to live in 'one-room house'; 39 percent, in 2-room houses; 27 percent, in 3-room houses, and 8.4 percent, in 'more than 3-room houses. But the actual supply availability of houses is quite different. So also in relation to supply pattern of the houses, 1-2 member households are 16.4 percent but the 1-room houses are 4.18 percent; 3-4 member households being 26.9 percent, but 2-room houses are 37.8 percent; 4-11 member households are 53.5 percent, but 3-room houses are 27.8 percent and 11-15 member, but '3+ houses' are 8.38 percent. Such a mal-distribution of sizes of households vis-a-vis room-sizes houses is highly depressing and inequitable. Relatively, the maldistribution, is much less in squatter settlements than in slum settlements.

Enthusiasm in regard to 'self-help' technique, only 18-19 percent offered preference and the rest of 81-82 percent were not anxious. Further, the Kanpur slum and squatter dwellers have not yet dramatized their opinion to modern means of entertainment (such as, cine-goers) and "they find themselves at home" in the indigenous culture, folk-lore and religious functions - and only 25 percent of the 1000 sample households seem to be addicted to cinemas.

However, more pronounced political or social consciousness in big cities is obvious because, the slum and squatter settlers receive training and ethos of trade-unionism. They have more inclination for partly in favour (that is, 64 percent in favour of Congress in 1976 and may be same or more proportion in favour of Janta Party now). Further, this impression is further strengthened since 82-90 percent of the electorates in slum and squatter settlements did vote in U.P. Legislature elections in 1974.

Chapter-X: Policies, Programmes and Perspectives

10.01 About a decade back, the growth of urban slums and squatter settlements was not considered perilous - and all sought solution to the growth of such settlements in present population migration in urban areas. Also the solution was being sought by dispersion ^{of} industrialisation and urbanisation. No detailed analyses to unearth the deep-rooted causes and characteristics of slum and squatter clusters were studied nor the problems were properly set; and steps taken were more rooted ^{in above two} negative measures. In most unpalatable situation clearance or bulldozing of the shacks were resorted to. But of late, the policy-makers and governments - bent towards unsheathing welfare policies are searching ways and means which can achieve in uplifting the respect for the common people; more-so, to raise the levels of living of the poor - who seek refuge in urban slums and squatter areas.

10.02 But the basic and crucial factors that need examination and action is to look for ameliorating the current destitute conditions of living of the people in slum and squatter colonies ^{and further} ^{also} engage in meeting the needs of new migrants in the cities who come to settle for jobs and habitation in urban areas. Diverting the attention to the programmes ^{of} rural development, family planning/welfare, decentralisation etc. are virtuous movements - but they have their limitations, because the rural development is innately rooted in raising productivity of rural land and labour - which raises production and reduces costs per unit of production - and causes demand for non-agricultural goods for which the hospitable climate ^{exists} in industrial/urban centres. This phenomenon cannot completely eliminate or reduce the flow of rural population in urban atmosphere - which have immediate impact on needs of current and future housing needs - that can be predictable if not very precisely - but at-least within the range of workable dimensions. The action-oriented programmes can be developed which can look after, at least the following; (1) shifting or re-locating

of those colonies - partly or fully, which are prone to damage city's normal progress and development; but this needs to be implemented after evaluating social, cultural, economic, liberalisation and administrative factors of the new relocation area as also the area whence the shift is intended; (2) improving the environmental infrastructure of basic facilities in the existing area, by improving dwellings, providing of services in and around the area; (3) to optimise by balancing the pros and cons of those who do not have the will and wherewithals to build houses vis-a-vis those who possess or have the potential to mobilise the resources to build proper housing facilities in the old or new area in an spontaneous zeal; (4) Preparing the blue-print in an expert way by incorporating multi-disciplined 'know-how' as against taking hasty action without thoughtful deliberations. In all such fixed investments in the infrastructure, the governmental agencies ^{play} a 'troupe' and the role would have all the sense of self-propelled efficiency - without forgetting that mobilisation on 'land' (its location and potency) and its development hold the 'key' to the success.

10.03 In the developing world the 'city' is no more the habitation for the rich and elites; and in urban parlance, the city is exponentially becoming the abode of the large numbers of poor, and it is the poor who direct the nature and character of urban physical growth; they settle on uninhabited plots of public or private land, on hill-tops, ravines, embankments, in central areas and on the peripheries. One factor reveals itself boldly in the developing world's cities is inequities in income - where difference between the earnings of the elite technician or manager is 15 and 20 times that of the workers - a phenomenon which exists less income differential in developed countries of Europe and Americas including centrally-planned countries.

Rate of
growth
of Migran
ts (+)
cities

10.04 After the Independence when India commenced in a planned way the social and economic development strategy, the evolution of techniques as they took place in the Americas and Europe (of physical, town and country planning including planning for metropolises) had a 'demonstration effect' on our policy-cum programme builders. Upto the end of Moghul period we had 'implosion of cities'; and 'gigantism of explosion' visited us , in our socio-economic development, in urban centres due to rural-urban migration in search of employment. In this process, the rate of growth of 'million (+) cities was faster since 1951 than other-urban centres - with high density centres bounded by low-density, low-sprawling peripheries - along with new phenomenon of capital cities, port towns, industry townships. But the native characteristics of our urbanisation were different from the West; in India, urbanisation preceded industrialisation (or the latter lagged behind) whereas the process in the West had been in the inverse way. The features of Indian prime cities has been specifically different; only about 40 percent of our 145 Class-I cities are manufacturing cities - and still fewer are industrialised cities; just less than 15 cities have more than 50 percent of non-agricultural working population; our prime cities also grew as centres - (like Bombay, Calcutta and Madras) of trade and transport, and about 65-80 percent of industrial establishments are small-sized and do not use power in Ahmedabad, Bangalore, Bombay, Calcutta, Hyderabad and Madras. The maladjustment in spatial and national planning is characteristically supreme. Only about 1 percent of the towns have the status of municipal corporation, nearly two-thirds of the towns have the status of one of the following - municipality, municipal board or committee, city or town municipality, municipal town committee,

town committee, town board, town area, town area committee ; rest of the about one-third of the towns pass with a variety of designations¹⁾ or no designations.

10.05 The faster growth of 'million(+)' towns leads, and provision of community and essential services lags behind with a long time-lag (or no provision at all). For example, on an average, the cost of urban development for providing of these services in the second half of 1970's per year - can be assumed at Rs.3,000 per capita (or Rs.15,000 per household)²⁾ in 1976-77 current prices, for the Class-I towns of India numbering around 150 in number with a total population of about 60 million, the new net increase in population annually will be 2.5 million - constituting about 0.5 million households costing about Rs.75,000 million. This assessment does not include the cost of the back-log of deficiencies in the existing infrastructure of community and essential services. Nonetheless, the affluent country like U.S.A., and the developing country like India when compared on the crucible of the size of urbanisation (and not on the size of ruralisation), they rub shoulders with each other. The recurring expenditure per capita in corporations, as adduced by the Rural-Urban Relationship Committee³⁾ of Class-I towns⁴⁾ was Rs.31.50 in 1962-63; due to inflation it may be put for 1976-77 (in current prices) at Rs.100 per capita⁵⁾. Incidentally, it may be averred that for Class-II, Class-III, Class-IV, Class-V, and Class-VI towns per capita recurrent expenditure would be respectively around Rs.69, Rs.52, Rs.50, Rs.42, Rs.37; Rs.35 (in 1976-77 prices) based on the data given for 1962-63 by the above committee.

- 1) These designations are: notified area, notified area committee, notified area council, cantonment, cantonment board, small town committee, sanitary board, station committee, union committee, panchayat, town panchayat, village panchayat, gram panchayat, and township; and still about 7 percent have no civic status.
- 2) In comparison, in the U.K. the cost in '1960's prices' was around £ 1,200 per household - and would be around £ 2,000 (or Rs.30,000) in 1976-77 prices.
- 3) Report of the Rural Urban Relationship Committee, Govt. of India, Min. of Health and Family Welfare, Vol.III p.239, 1966, page 113.
- 4) In the World's population of about 3,638 millions, in 1970, urban population was 1400 million (or 38.6%) and in cities of '100,000 and above' (i.e. in Class I cities) the urban population was 23.8 percent of the urban population.
- 5) 1976-77, Consumer Prices Index is around 325 (with base 1961-

10.06 Again, the "Zakaria Committee on : 'Augmentation of Financial Resources of Urban Local Bodies (1965)", had made per capita recurring maintenance costs (in 1960-61 prices) for different items⁽⁶⁾ of municipal services - had put ^{towns into} six categories: A (Special) A, B, C, D and E respectively with '2 million +' population, 0.5-2 million population; 0.1-0.5 million; 50,000-0.1 million, 20,000-50,000 and below 20,000 dividing class-I towns in three standards, and combining towns of Class-V and VI into Standard-E, at 'desired expenditure-level' and the actual expenditure incurred - showing a per-capita deficit in the 'desired level of services' to the extent of (rounded percentages of about) 22 percent, 42 percent, 55 percent, 54 percent, 49 percent, and 47 percent in Standard cities of A (Special), A, B, C, D and E.

Nature of expansion of million (+) cities 10.07 As explained in paragraph-1.04, the expansion and increases of population in urban areas had preceded industrialisation. In the developing countries, natural increases in population, in big cities along with inflow of rural migrants exodus had no precedence - and the population coming into old and new slum and squatter settlement areas have been explosive in size since in relation to the lagging behind of the provision of social and economic development and precedence to high density. The problem became herculean - and would become intractable, by 2001, because in the arena of world urban population of 2,400 millions will come to live in the developing countries; in essence, the urban land values will grow in big urban centres which are already higher in comparison to developed countries - notwithstanding growth of slums and squatter settlements growing both in central and peripheral areas. The densities go as high as 1,320 per acre (or 3300 per hectare) in Bombay - followed by Calcutta - and a wide picture of 'million (+)' and 4 'half-million(+) ' Indian cities in 1961. What will happen, by 2001, can be only imagined in India and other developing countries.

Table 10.01: Increasing densities with the rise in population - sizes of cities

Characteristics	'million(+)' cities(5)	Half-million(+) cities (4)	200,000 to 500,000 cities(8)	100,000 + 200,000 cities (18)
(1)	(2)	(3)	(4)	(5)
1. Gross density (per acre)	71	28	29	20
2. Developed density (per acre)	97	53	42	35
3. Residential density (per acre)	257	137	86	60
4. Maximum spot density(per acre)	5228	815	665	410
5. Minimum spot density (per acre)	15	11	5	2
6. Percent of dev. land (per cent)	74	53	69	57
7. Percent of non- dev. land (percent)	53.9	46.1	31	43

10.08 Resultantly, whatever infrastructure is provided (or provided quite belated), in any case presents only a sub-standard quality (with heavy density) of life - putting unbearable strain on the scant investment resources for the competitive needs of infrastructure for the citizenary. Thus the process of urbanisation, brings in its wake in the developing countries, quite many distortions in setting up physical, social, economic, financial and investment profiles - and more prominently creates shortages of supply of various civic services needed by the urban low-income classes. All these lead to a 'fait-accompli' of degraded conditions of life-which incessantly visit and revisit with cumulative forces with more and more migration tides - and breed slum and squatter clusters with impunity. Actually, as the slums and squatter habitations grow at an

exponential rate making conditions analogous to what biblically called 'all dressed in velvet and silk but with cheap stockings underneath the favela'. (A 'favela' means, a slum and/or squatter settlement in Rio-de-Janeiro, - other Spanish equivalents being - 'ranchos', in Chile; 'barriadas', in Peru; 'villas misarias', in Argentina; 'colonias proletarias', in Mexico; 'barong-barongs', in the Philippines; 'geucondu', in Greece; and bidon villes in French territories). Urgent action is a 'must' to maximise social benefits out of minimum available investment resources - along with a proper and constant evaluation of progress and monitoring the process of implementation as the essential steps. Further, the existence of multiplicity of local governmental or autonomous semi-governmental authorities - within the metropolis, without break, create over-lapping jurisdictions ⁶⁾ aggravating the existing state of confusion and obstacles.

Summary in Statistical Terms of Slum and Squatter in Kanpur 10.08 Drawn from the earlier chapters, a summary situation can be recalled, about Kanpur metropolis. The coverage of the R.P.C. mid-1950's Survey in Kanpur had noted that out of a sample of 4,914 families - 1,487 (or 30 percent) were non-migrants and the rest 3,427 were migrants ^{6a)} and the population was 660,225 in Kanpur municipal area; and earlier in 1948, in some of the slum areas, population was of 123,755 persons who lived in 812 'ahatas' in 33,385 rooms. This meant that nearly 20 percent of the city's population were living in slum and squatter settlements - with overcrowding to a suffocating level, high general and infantile mortality,

6) For example, Calcutta agglomeration comprises of four municipal corporations of Calcutta, Howrah, Bally, Ghandarnagar; twentynine municipalities; and 37 non-municipal urban areas. In Delhi also, there are multiplicity of local and autonomous agencies, such as Delhi Municipal Corporation, New Delhi Municipal Committee, Cantonment Board, Delhi Electric Supply Undertaking, Delhi Transport Corporation, Delhi Development Authority, Delhi Arts and Beautification Commission, Delhi Metropolitan Council, etc. However, in Kanpur such a situation is not unhealthy because there are integrated institutional relationship between Kanpur Municipal Corporation and Kanpur Development Authority except that Cantonment Board and Railway have their own autonomy.

6a) It thus follows that 'migrants' constituted 70% - or they contributed 70% of the growth in population/households.

killing diseases, and poor city transport facilities, no or very poor educational services. The municipal expenditure was around Rs.12.5 per capita per annum in 1951-52.^{6b)} In 1961, with the rise in population to 0.971 million, the proportion of slum and squatter population perhaps moved upto 25 percent; in 1971, with population-size of 1.27 million, the proportion of slum and squatter population to 30%; in 1973-74, as noted by the I.C.D.P. for Kanpur Metropolis (1975-81), about 33 percent of 1.38 million population; in 1975, to 36.7 percent of 1.44 million population; and 37.3 percent, in 1976, of 1.5 million population - as shown in Table 10.02 below.

Table-10.02: Population; Slum and Squatter Population- their proportion and average Household Sizes (1948/51-1971) in Kanpur City.

(1)	(2)	(3)	(4)
Year	Population	Slum Population (including Squatter)	Average Household Size
1948-51	660,225	123,755 (20.00)	4.5
1961	971,000	242,750 (25.00)	5.0
1971	1,268,000 (estimated)	380,400 (30.00)	5.5
1973-74	1,384,000 (estimated)	440,000 (33.00)	n.a.
1975	1,442,000 (estimated)	500,000 (36.70)	n.a.
1976	1,500,000 (estimated)	560,000 (37.30)	6.0 estimated

Future perspectives of Population Size and Growth of Slum & Squatter Settlements. 10.09 It is quite feasible that when the world population, in 2001, would be about 6,000 millions-with urban share of 50 percent (or 3,000 million); of this, about 35 percent (1,050 million) will live in cities of '100,000(+)'.

6b) If it is compared with data given in para 10.05, Kanpur's current delivery of municipal services was at a lower level.

population. In India total population, in 2001, will be around 881 millions (or say 900 millions) - of which the urban population will, perhaps be about 321-322 million (or 36 percent of total population). In '100,000+' cities (or Class-I cities), the urban population held will be around 205 millions (or 64 percent of urban population - which was about 52 percent, according to 1971-Census. Again, in 1971, the urban population in eight 'million +' cities was 25.8 million or about 44.5 percent of the population living in '100,000+' cities; it is estimated these eight cities, in 2001, will hold nearly 76-77 million people - which will, however, form only 37.5 percent of the Class-I cities' population. While projecting the population of these cities - belonging to Class-I, it has been assumed that the growth will be at a declining rates - so that the proportion of Class-I cities will grow by only '4 percentage points' in a decennium-but the decline in rate will be still faster in 'million +' towns. Consequently, though the proportion of the urban population will rise only to 64 percent of Class-I towns in 2001, from 52 percent in 1971 - and within it the share of 8 'million +' cities within Class-I group will decline from 37.5 percent in 2001, from 44.5 percent in 1971 (For the projected data, see Table-10.03). So far as the slum and squatter population as a proportion of total city population of Kanpur city is concerned, the picture has been presented in Table 10.02 upto 1976; and it is feared that the proportion ^{of slum and squatter population} will easily rise to about 50 percent of the total city population which will grow to about 3.2 million in 2001, from 1.5 million, in 1976. The supply of dwellings rate will hardly accelerate in the city from the 'substandard rate' of 1.25 or 1.5 dwelling units, per annum, per thousand of population. Table 10.03, gives a more detailed picture, in relation not only to Kanpur city but also presents the macro-and micro portrayal for 'million +', '100,000 +', cities and all the urban centres upto the year 2001.

Table-10.03: Projected Urban Population in India distributed quinquennially in 'million(+)' cities, '100,000(+) cities, Kanpur and the residue Urban Population (from 1971-2001)- along with estimates of Slum and Squatter Population.

Year	Million(+) Kanpur (in millions)	Cities other seven cities	Total (2)*(3)	100,000(+) cities	Other residue towns (in millions)	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1971	1.2 (5.00)	24.11	25.38 (44.50)	57.02 (52.04)	51.77 (47.96)	108.79 (100.00)
	<u>SI+SQ</u> → 35%	0.42	7.40	7.82		
1976	1.5 (5.20)	20.20	30.70 (44.20)	69.39 (54.00)	59.10 (46.00)	128.49 (100.00)
	<u>SI+SQ</u> → 37.3%	0.56		11.45 (37.05)		
1981	1.75 (5.00)	35.30	37.05 (43.20)	85.55 (56.00)	67.22 (44.00)	157.77 (100.00)
	<u>SI+SQ</u> → 40%	0.70	14.12	14.82		
1985	2.05 (4.60)	42.70	44.75 (41.80)	106.80 (58.00)	75.60 (42.00)	184.40 (100.00)
	<u>SI+SQ</u> → 42.5%	0.87	18.15	19.02		
1991	2.40 (4.60)	51.24	53.64 (40.80)	131.54 (60.00)	88.68 (40.00)	219.24 (100.00)
	<u>SI+SQ</u> → 45%	1.08	22.96	24.04		
1996	2.77 (4.50)	61.50	64.27 (39.10)	164.26 (62.00)	100.68 (38.00)	264.94 (100.00)
	<u>SI+SQ</u> → 47.5%					
2001	3.20 (4.50)	29.21	30.53			
	<u>SI+SQ</u> → 50%	73.70	76.90 (37.50)	205.26 (64.00)	116.41 (36.00)	321.67 (100.00)

Notes¹⁾ In support of projected percentages case of Lima be quoted. In 1940, Limas population was 600,000 with 5% slum & squatter population; but in 1966 population grew to 1.8 million with 25% represented by slum and squatter population. Based on simple extrapolation, with 6 million population in 1991, 75% will be slum & squatter population.

2) In 1971, population of Calcutta, Bombay, Delhi, Madras, Hyderabad, Bangalore, Ahmedabad and Kanpur were respectively 7,005,362; 5,968,546; 3,629, 842; 2,470,288, 1,798,910; 1,648,232; 1,588,378; and 1,273,016.

3) According to 1971-Census, number of '100,000(+) cities were 142 as compared to 103, in 1961; and 81, in 1951.

4) Projections for growth in Kanpur population, have been based on about 31 percent per decade; for other 'million(+) towns at 41% per decade; for '100,000(+) cities by raising percentage by '2' points for each quinquennium- and obtaining the residue from the total urban growth at a phased rates ranging from 3.44% per annum per quinquennium to 4% in the last quinquennium of 1996-2001 by increasing the rates. See footnotes 5), 6) and 7) on next page.

10.10 For the projected changes, as shown in Table-10.03, of population sizes in different classes of the cities, what is important is to crystallise, phased quinquennial programme s- to provide a modicum of environment of the infrastructures of essential and community services, as also residential structures for nearly 50 percent of the population in million(+) cities (which can be specifically restricted to Kanpur city-- or perhaps extended to the present eight 'million(+) cities- and probably be ballooned to an ~~high~~ estimate of population of likely number of '20 million(+) cities in the year 2001. The size of the population in Kanpur would be 4.5 percent of the existing eight 'million(+) cities and 1.5 percent of '100,000(+) cities and about 1 percent of the total urban population. The slum and squatter population/^{rise} could be at a 'lower point', if the new infrastructure is simultaneously provided by the urban government by ~~infective~~ required investment - supported by the recurring expenditure on Municipal Services (supplemented by financial grants, loans, etc. from the State and Central governments) However, it is important to note that the particular problem of the slum and squatter population of Kanpur will be around 4 percent of the problem of 8 'million(+) cities. 2.5-2.7 percent, of the total problem of the 20 'million +' cities; and 1 percent, of the urban population of India, in 2001.

10.11 The total cost of complete elimination or improvement of the slums (1) by providing residential accommodation as also of (2)/^{by} providing municipal services of essential and community /can be estimated as below based on the data further isolated in Table-10.04. In this Table

Footnote from pre-page continued.

5) Figures within brackets in Col.(2) show proportions to total population of 'million(+) cities in Col.4 as a proportion of '100,000(+) cities; in Col.5 proportions of '100,000(+) cities to total urban population, and in Col.6 for the rest of the towns.

6) Proportion of all the 'million +' which might number 20 in 2001, could be 123 million-forming about 60 percent of the '100,000(+) cities at that time.

7) SL-SQ stand for the estimated sizes of slum and squatter population of the million(+) cities.

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for the million(+) eight cities, the existing back-log of slums and squatter settlements in 1976, is of the order of 11.45 million people; 0.56 million in Kanpur and 10.89 millions in other seven 'M_n' cities; it also broadly amounts to about 2.3 million households; 0.11 million in Kanpur and 2.2 in other seven 'M_n' cities' - needing 2.3 dwelling units - at a standard of one dwelling for one household. The additional growth of slum and squatter settlements for Kanpur and other seven cities will demand additional investment and recurring inputs of the government - besides 'phased provision' to eliminate the back-log as it existed in 1976.

Table-10.04: Five Quinquennial Physical Plans for the Elimination and Improvement of Slum and Squatter years in Kanpur (1977-2001)

Sr.No.	Periodic Situation	Slum & Squatter Settlements affected households (in millions)	Cumulative totals of col.3.	Annual Plans for elimination/improvement over five year periods (Slum & Squatter programmes for households)					
				1981 (I) B.L	1986 (II) B.L	1991 (III) B.L	1996 (IV) B.L	2001 (V) B.L	
1	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0	Backlog in 1976	0.56	0.56	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)	
I	Addition in five years (between 1977-81)	0.14	0.70	0.022	0.022	0.022	0.022	0.022	
II	New Addition in five years (between 1981-86)	0.17	0.87	0.028	-	-	-	-	
III	New Addition in five years(between 1987-91)	0.21	1.08	-	0.035	-	-	-	
IV	New Addition in five years (between 1992-96)	0.24	1.32	-	-	0.042	-	-	
V	New Addition in five years (between 1997-2001)	0.28	1.60	-	-	-	0.048	-	
	A. Annual Programmes								0.056
	B. Five Year "			(0.050)	(0.057)	(0.064)	(0.070)	(0.078)	
				(0.25)	(0.285)	(0.32)	(0.35)	(0.39)	

Importance of Optional Uses of Urban Land and ICDP of KDA 10.12 Land is a 'key' material input - and a developed land (better to call it a 'manufactured land' with all essential services and community facilities). Since, the metropolitan city has a much more inhibiting factor in providing 'more and more' of land, it is pragmatic / ^{and} inevitable to construct high-rise residential estate - as far as possible at the existing slum or squatter areas or shatas rather than shift on new land on which one-storeyed houses are raised.⁷⁾ To reduce cost of construction of dwellings, if only 'sites and services' are provided by the public sector - brings in is neither economy in land-use nor in reducing the financial cost in the community whether the houses are raised by the public sector or by the prospective tenant-owners.

10.13 Existing land-use of the 114.55 sq.miles (or 296.65/kms. or 73,240 acres) of Kanpur city is distributed in a particular pattern. Again, the undeveloped land is 101 sq.miles. (or 261.59 kms). The developed land is 21,337 acres; 45,550 acres are under cultivation; and 6,353 acres, ^{are} lying vacant. The 23 year Perspective Master Plan, of Kanpur (1967/68-1991) laid down five objectives - in which besides 'most efficient economic utilisation of land and labour work centres', other objectives are: elimination of slums, adequate transportation facilities, redevelopment of central areas and reallocation of non-conforming uses to the periphery of existing developed areas, and to provide water, sewerage, power and other services (such as education, health, recreation, roads, lanes, road and river bridges, etc.) to mitigate the existing back-log as well as to meet future demands. For the 'key' factor of land, ⁱⁿ the first 6-year programme of Kanpur (1975-1981), it is estimated that for 2.35-lakh increase in population every year, the 'land acquisition and its development' will be essential-in addition to the land required to eliminate the back-log of 'land-supply' for the various needs of the citizenry of Kanpur in a

7) If an 'ahata' of 25 households (or an ahata of lower size) is to be cleared, a new transit camp can accommodate 25 households till new.

phased way. It has been estimated in the Kanpur's plan that the house shortages will rise to 1,26,000 dwelling units, in 1981, from 46,000 units, in 1961 - and that little over 30 percent (or 0.5 million) ^{of the} people lived in slum areas; and in 1975, 35 percent of people had less than 100 sq.ft. living area and 70 percent lived in one-room houses. However, an urgency as indicated in the **TDRP** is to undertake large-scale slum clearance and improvement of environs programme.

It is strongly urged that in this direction Kanpur Development Authority will have to necessarily take steps to acquire 'slum shatas' land from the private hands, so also to generate further push to industrial growth and employment, land shall be required for "industrial and warehousing function", land for commercial and other functions, transport services etc.; land for utilities, recreation, water and electric supply etc., ^{and} land for sewerage and sewers, & drains. After taking into account the relative importance of different competitive sectors and their functions, envisaging immediacy of spatial integration; as also in accordance with ^{the} above objectives and guidelines, an attempt ^{has been} made to affect certain structural changes in the 23-year ICIP programme by land uses from 1967-68

to 1991 are shown in Table 10.05.

10.14 It is obvious from Table 10.05 that the "land-use" has been sizeably changed - particularly in regard to raising the land ^{utilization} (though through absolute rise in area) for "recreational facilities" to 10-times; for industrial and warehousing, to 4.8 times; for utilities and services, to 3.62 times; for residential uses, to 3.1 times; for commercial use, to 2.52 times; for 'community services', to 2.05 times; and for 'circulation and transport', to 1.68-times. However, there has been more radical perspective change, which attempts to remove completely the agricultural use of land which formed nearly 62.3 percent of the total land available in Kanpur city. Consequently, the 'built-up uses' proportion of the total land becomes

Table-10.05: Structural Changes proposed for 1991, from 1967-68 over a Period of Twenty-three years in the Kanpur Perspective Plan.

Land Use (in 1967-68)				Proposed Land use (in 1991)			
Land-Use	Area(in acres)	Percentages	Index	Land-Use	Area (in acre)	Percentages	Index Change
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Residential	6,985.1 (47.5)	(100)			21,668.8 (47.2)		(310.2)
(2) Commercial	471.6 (3.2)	(100)			1,188.6 (2.6)		(252.4)
(3) Industrial & Ware-housing	1,221.4 (8.3)	(100)			5,386.7 (11.7)		(480.5)
(4) Community facilities	1,779.7 (11.9)	(100)			3,594.8 (7.8)		(205.4)
(5) Govt. & Semi-Govt.	181.4 (2.0)	(100)			1,107.6 (2.4)		(610.6)
(6) Utilities & Services	73.2 (1.0)	(100)			264.9 (0.6)		(362.0)
(7) Recreational	744.2 (19.6)	(100)			7,705.2 (16.8)		(1035.7)
(8) Water Bodies	385.6 (2.5)	(100)			129.5 (0.3)		(033.6)
(9) Circulation & Transport	2,879.5 (19.6)	(100)			4,859.2 (10.6)		(168.6)
I . Built-up (Sub-Total)	14,691.9 (100.00)	(20.00)	(100)	I . Built-up (Sub-Total)	45,904.8 (100)	(79.7)	(307.7)
II . Cultivated Land	45,550.4 (62.50)	(100)		II . Cultivated land	-	-	-
III . Open Land	6,352.8 (8.70)	(100)		III . Open Land	-	-	-
IV . Un-classified	6,645.0 (9.00)	(100)		IV . Un-classified	11,717 (20.3)	(177.6)	
Grand Total	73,240.1 (100.00)	(100)		Grand Total	57,622.4	-	(078.7)
+ II+ III+ IV Corporate Area				+ II+ III+ IV Corporate Area			

Notes: (1) Figures within brackets under Col.(2) and (6) indicate sub-totals' proportional distributions; those under Col.(3)& (7) indicate sub-items percentage distribution; and those under Col. (4) and (8) show base indices(1967-68) and changed indices(as visualised for 1991).

Sources: Integrated City Development Programme for Kanpur Metropolis (1975-81) and Perspective Plan (1967/68-1991), Tables-1.5 and 1.6, pages 7 and 9 (Kanpur Development Authority in collaboration with Town and Country Planning Department, U.P. 1975)

enormously to more than three times from 14692 acres (in 1967-68) to 45,905 acres, in 1991. In addition, the land area available under 'unclassified use' which may be allocated later on, has been raised to 1.78 -times. In effect, the use of the available land is proposed to be reduced to almost four fifths (i.e. 57,623 acres, in 1991) of the land availability from 73,240 acres, in 1967-68. It also means that the urban land area which was 73,240 acres in 1967-68 is visualised to be cut in size by 20 percent.

10.15 The one of the important consideration with the I.C.D.P., is that the 'residential areas' will be optimally near to work-places, and therefore, both the work-places for tertiary activities (such as government offices, etc.) are being located in the South of Kanpur, and the industrial complex is being developed in areas other than the south so that by decentralising the non-conforming industries to specific locations and by creating a new district centre in addition to C.B.D. (Central Business District). The West side, is being developed by 'raising forests' along the course of the Ganges and Pandu rivers. So also 'roads and bridges' are being planned to connect two East-West by-pass roads - through six new overhead bridges including one overhead river bridges on G.T. Road which has been already constructed; and the others at Panki, Murray Crossing and near the Eye Hospital) two additional road-bridges over the Ganges - one at Bhairon Ghat in the West and the other near Jajman in the East - offering connections from G.T. Road to National Highway-25, and National Highways No.2.

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10.16 As already suggested it is essential, for slum clearance and improvement in para 10.13, two types of implementation programmes shall have to be simultaneously launched, namely, (1) the basic provision of basic minimum facilities for the slum and squatter houses to be provided at the earliest; (2) to clear the areas which are not fit for human habitation⁸⁾ for which K.D.A. shall have to acquire the private lands owned by the shata-owners. What is also

8) The congested area in Kanpur is mostly in old city-on either side of Halsey Road -enveloping an area of 800 acres with an area of density of 800 persons an acre (being six times the maximum acceptable density per acre of about 120-150 persons) in areas such as Gwaltola, Collector Ganj, Colonelganj, Cooperganj, Coolie Bazar, Nayaganj etc. A bold step is urgent to rehouse these inhabitants. (Source: ICDP of Kanpur Metropolis, page 22)

needed is to implement the programmes which will concentrate both on curing the existing malady in a phased way (which relates to back-log of the dwellings stock of 'slum and squatter settlements) and the other to fully prevent the new occurrences of the slum and squatter settlements with the spontaneous waves of the immigrants and lagging behind in building residential stock needed for the natural and immigrants, spontaneous needs/demands of the population of Kanpur Metropolis. The mix of both the types of the problems are dimensionally estimated as indicated in Table 10.04., on which the attack shall have to ^{built} 50,000 residential units (22,000 for the removal of back-log and 28,000 for the addition of likely slum and squatter households) per year during 1977-1981; 57,000 residential units (22,000 for the removal of the back-log, and 35,000 for the likely addition in slum and squatter households, per year during 1982-86; 64,000 residential units (22,000 for the removal of the back-log, and 42,000 for the additional likely growth in slum and squatter households) per year during 1986-1991; 70,000 residential units, (22,000 for the removal of the backlog, and 48,000 for the additional due to likely growth in slum and squatter households), per year, during 1992-1996; and 78,000 residential units-(22,000 units for the removal of the last phase of the back-log and 56,000, to prevent the additional growth of the likely slum and squatter households) per year, during 1997-2001. Thus, it is clear that besides removal of the backlog of 0.56 million slum and squatter households' needs for healthy residential units and environment (during five quinquennial plans during the next 25 years-1977-2001) along with minimum essential and community services, there will also be implementation for the new construction of residential units to meet the growing needs of the new slum and squatter households which will grow naturally and through spontaneous migration in Kanpur city -totalling to 1.04 million (1.60 million minus 0.56 million existing, in 1976) during next

25 years (by 140,000 households during 1977-1981; by 170,000 households, during 1982-86; by 210,000 households, during 1987-1991; by 240,000 households, during 1992-1996; by 280,000 households, during 1997-2001).

10.17 Out of the five quinquennial plans (1977-2001), in the first plan (1977-1981); the total slum and squatter dwellings required will be 250,000; in the second plan (1981-86), 285,000; in third plan (1986-91), 320,000; in the fourth plan (1991-1996), 350,000; and in the fifth plan (1996-2001), 390,000. The long-term plan aims at uprooting the situation of 'habitations not suitable for human beings'. The financial cost will, however, be around Rs.1,500 million; for the first plan; Rs.1,710 million, for the second plan; Rs.1,920 million, for the third plan; 2,100 million, for the fourth plan; and Rs.2,340 million, for the fifth plan. For the period (1977-2001), the total financial cost will be Rs.9,570 millions or Rs.300 million per year, in the first plan; Rs.342 million per year, in the second plan; Rs.384 million per year, in the third plan; Rs.420 million per year, in the fourth plan; and Rs.468 million per year, in the fifth plan. (See Table 10.06 Column-7)

Financial costs Esti-
ates for Kanpur The programme in 'ICDP of Kanpur Metropolis' is limited to only about 30,000 dwelling units and in addition to provide 25,000 'sites and services' facilities (Ibid, page 22 and 23); in any case it involves 55,000 plots. The average development cost per plot (for providing main pucca roads, brick-paved side lanes with side drains as approaches to the rows of plots/houses, one water-tap in each unit, flush latrines in each unit, school sites and parks, street-lighting, shopping centres and community facilities) are estimated at Rs.3,500/- At this rate, for 55,000 plots the development cost will be Rs.192.5 millions; Rs.87.5 millions for 25,000 sites and services; and Rs.105.0 millions for 30,000 plots of intended dwelling units. Even if the

9) Based on Rs.6,000/- per dwelling estimate made in 'ICDP of Kanpur Metropolis' of Rs.6,000/- for minimum based houses - with plot size of 42 sq.yds. (or 378 sq.ft.) = 12'6" x 36 size plot. But the standard size is too small to accommodate more than 4 members household/family. (Ibid: page, 23)

'self-help' technique is employed on 'sites and services' plots, the total cost for each of the plots-cum-houses will be Rs.6,000¹⁰⁾ per unit- free technical advice and materials at subsidised prices; resultantly total cost will be Rs .330 millions. If to the estimates of 55,000 above-mentioned dwelling the costs of 5,000 core housing (or Janata Housing) and 13,000 houses for 'economically weaker sections (i.e. slum-dwellers) as planned in 'ICDP of Kanpur Metropolis' are are added, the total cost will further go up by Rs.128 millions - making a total of Rs .458 millions, for the six-year period of 1976-1981) as programmed. But the programme prepared under the 'ICDP', though meant for six-year strategy, actually more or less subsumes all that is required for "a year's" programmes only - when other weaker sections of the city are taken into consideration, besides ameliorating the conditions of the slum and squatter households 'existing at present' and 'those who would add to the city's density by natural growth and spontaneous' immigration'. The estimates shown in the earlier paragraph (10.17) endorse judgement and financial assessments - which decisively dwarf the 'ICDP estimates'; to depend on the latter will cumulatively raise the "hydro-headed monster" both in width and in the altitude for Kanpur metropolis problems.

10.19 The costs are made of (a) land; (b) dwelling standard; (c) costs of construction; (d) overhead costs; (e) financing cost; and (f) maintenance cost. Of these land costs are basic and these are generally higher in the urban centres of developing countries as compared to the cost of the physical structure of dwelling because of pressures on

10)For Asian countries, for the(1) minimum dwelling; and (2) improved dwelling, the cost estimated by United Nations in urban areas, in the year 1968, were respectively (1)\$742 (or Rs.5565); for dwelling- \$ 423+\$72 for land +\$30 interest cost +\$217 for basic utilities; and (2) \$1207 (or Rs.8,053); \$670 for dwelling cost+ 135+\$45 for interest +\$357 for basic utilities. These cost in 1976-77 could be easily 50 percent higher - say respectively being Rs.8,400 and Rs.13,000 (See Tables 10 and 16 of the United Nations' study "Finance for Housing and Community Facilities in developing countries, 1968 U.N.Sales No.E.68.IV.4, pages 26 & 29). Basic utilities are comprised of water supply plus sewerage, roads streets, storm drains, electricity and overhead, in which water-supply alone costs about on an average 0.3% of the G.N.P. South-East Asia (Ibid: page 54)

11) See note on next page.

limited land, status of land-ownership, tax laws which do not open other investment arena, squatters occupying invaded land due to hardships of low-income households. These require equitable distribution of land, ownership of land by public sector and corrective legislative actions. The dwellings cost emanates from the standards set for the dwellings; but for low income households dwelling would be cheap and durable providing minimum and core planned houses - along with community-level provision of water plus sanitary services. Construction costs depend on the cost of materials used, and the level of skilled labour employed; however, the ratio between materials and labour costs in Asian countries is 70:30; but in India it is generally 73:27 as worked out by the National Buildings Organisation. Administrative and financing costs relate to 'overhead costs' of the public sector agencies, or cooperative Housing Societies or the imputed costs for the self-owned houses of the occupying households; and the financing costs relate to interest rates (plus preliminary costs to obtain loans); the interest rates at commercial rates are higher - but when subsidised these are lower - particularly where subsidized housing schemes are in operation as also when the repayment period is also longer.

10.20 Against the cost structure, the annual/quinquennial needs for the materials in Kanpur will roughly cost 73 percent of the dwellings costs and labour will account about 27 percent. Land costs will be about 20 percent of the dwellings costs and for community services about one-third of the cost(s) of dwelling(s). These aspects can be summarised briefly in Table-10.06 as regards the longterm plan (1977-2001) for Slum and Squatter Clearance and Improvement.

11) Typically, the metropolitan areas experience formidable teething and growth pains - along with a primitive hinterland of regions which lag behind conspicuously. In the cities, the monstrous slums and squatters exist side by side with congestion in residential estates, congested traffic, heavy shortages of essential services - and above all the economic and social overhead infrastructure is to be financed fully by the public sector which involves easily 50-70% of the total investment in the towns, regions and the country.

Table-10.06: Cost of Land, Dwellings (Materials & Labour)
 Basic Services in five Quinquennial Plans
 (1977-2001) for Slum Clearance and Improvement
 Action Programme.

Sl. No.	Plan Periods	Land Area for House holds I	II	Dwell- ings con- struc- ted Nos.	Mater- ials cost (in mill- ion Rs)	Lab our cost	Total Cap- ital cost of land	Capi- tal plus dwell- ings (7+8)	Land plus dwell- ings (7+8)	Cumu- lative Capi- tal cost (in Rs. Millions)	Recu- rrent cost int- erest, main- tenance @10% of col. 10	
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I	1977-81	0.050	4- storey <u>(17.6)</u> <u>(18.8)</u>	0.05	1095	405	1500	300	1800	1800	180	
II	1982-86	0.057	<u>(20.2)</u> <u>(10.1)</u>	0.057	1248	462	1710	342	2052	3852	385	
III	1987-91	0.064	<u>(22.5)</u> <u>(11.2)</u>	0.064	1401	519	1920	384	2314	6166	616	
IV	1991-96	0.070	<u>(24.7)</u> <u>(12.4)</u>	0.070	1533	567	2100	420	2520	8686	868	
V	1997- 2001	0.078	<u>(27.5)</u> <u>(13.8)</u>	0.078	1708	632	2340	468	2808	11594	1160	
Grand Total				0.321	0.274	6985	2585	9570	1914	11594	---	
				(112.5)	(56.3)							

Notes: (a) Figures within brackets under Col.3 indicate the total land area in sq.kms. needed (at 42 sq.yds per plot size for each household as laid down by KDA) is 112.5 sq.kms. whereas the figures within brackets under Col.4, show land area needed when four-storey houses/tenements are constructed (at 42 sq.yds space for each household/tenement) on a 42 sq.yd plot-keeping another 42 sq.yds land open. Another condition is that the ground floor area either 100% or 50% may be deployed for workshops/shops-in order to provide work-place near the residential estate.

(b) Total dwelling in the first, second, third, fourth & fifth quinquennial plans as programmes are respectively 0.05 million, 0.064 million, 0.07 million, 0.078 million (see col.4) making a total of 0.274 million; at corresponding capital costs of Rs. 1500 / 1710 million, Rs.1920 million, Rs.2100 million; Rs.2340 million, making a total of Rs.9570 million (see col.7) each of these amounts divided into materials and labour costs under col.5 & 6.

(c) KDA has estimated land cost, roughly at 10% of dwellings cost; but it may not be so in case of metropolitan cities- and according to UN study of 1968, here it is preferred to put land cost be put as 20% of dwellings cost (see col.8). The total capital cost for dwellings and land is the sum of col.7 and 8.

(d) In order to arrive at current cost, we have taken only 4% rate

contd

10.21 Kanpur Development Authority has already drawn a programme, for raising the land area from 6985.1 acres in 1967-68, for residential uses, by 14,683.7 acres (or about 60 sq.kms.) by 1991, ¹²⁾ aggravates to 21668.8 acres. For 18 Notified Schemes, under the ICDP Programmes, K.D.A. has already earmarked land uses of 2909 acres functionally: (1) for residential use, 2,000 acres; (2) 301 acres, for district centre commercial area; (3) for industrial and warehousing, -552 acres; (4) for educational and research, 56 acres for the 6-year period (1976-81). The foregoing area is about 10 percent of the total area of different stages of 18 Schemes of 29474.14 acres - of which 12,959 (or 44%) acres has been acquired; nonetheless, it is planned to include an area of 3,657 acres under ICDP of which 2,909 (or 80 percent) mentioned in the earlier sentence is a part - and remaining is meant for college, hospital, transport, bus-terminal, green-belt, water works, master plan roads. Again, schemewise arrangement ^{is} nearly half (about 1,905 acres), out of 3,657 acres is marked for Schemes 16 and 17); one-fifth, Dr Scheme-15; one-tenth, for Scheme-1; 8 percent, for Scheme 2 and 3; and 3 percent, for Scheme-14. The average economic cost per sq.yd. worked out for 2,000 acre residential area, is Rs.55/- attributed to only 1,200 acres (or 60% saleable area out of 2,000 acre. For commercial plots, further addition of Rs.30/- per sq.yd. since ^{only} 40% is saleable - making economic cost of Rs.85 per sq.yd; and in order to make this sector remunerative, the sale price is intended to be fixed at Rs.125 per sq.yd. For industrial area, as 70 percent of gross area is available, the cost is put at Rs.30 per sq.yd. For community services plots, as the total gross area will be available, the ^{subsidised} cost estimated is

13) Eighteen Schemes are: (1) Factory Area; (2 & 3) Town Extension-South City Extension; (4) Gutaiya Scheme No.7; (5) Pech Bagh Dalelpurwa Scheme; (6 & 7) Raipurwa Scheme 22 & 22-A; (8) Old Kanpur Scheme No.6; (9) Moti Mahal Slum Clearance Scheme No.31; (10) Slum Clearance Scheme No.32 for Chak No.95; (11) Bipat Khatik-ka-Ahata Scheme No.33; (12) Laxmi-purwa Sudhar Yojna Scheme No.34; (13) Gwal Toli Slum Clearance Scheme No.36; (14) Western Expansion Scheme No.38; (15) Eastern Expansion Scheme No.39; (16 & 17) Kalyan Panki Pandu Green Belt No.40 & No.40 ha revised Scheme (18) Slum Clearance Scheme No.44 at Gulab Babu's-km- /
dm of interest (as a subsidised rate of interest) and allowing for repairs and maintenance expenses- and depreciate charges the total current cost is imputed @ 10% per annum-for cumulative capital stock which reaches to a level of Rs11594 by 200/-which has not been depreciated because the growing size of the developing metropolis will appreciate the capital values of the real estate. The recurring cost, it may be emphasised refers to annual recurring cost and

Rs.20 per sq.yd.

10.22 It is further provided that the 42 sq.yd developed plots which will on an average cost about Rs.3,300- will get a subsidy of 10 percent - making their sales at Rs.3,000 per plot; hence the realization of 25,000 plots for

'economically weaker classes' the total will be Rs.75 millions. ^{it is meaningful to note that} The subsidy rates for land costs are low and land costs and dwelling costs ^{together} are rather higher in relation to the paying capacity of the slum and squatter settlements. They

on an average/monthly rents (or their imputed rents) forming about 0.5 percent to 2.22 percent of household expenditure of the squatter and slum households respectively. Again, in money terms are Rs.2.20 and Rs.11.65 per month.

Further, 34.3 percent did not pay 'rent'. Those who paid upto Rs.5/- p.m. were 15.6 percent; between Rs.6-10 p.m., were 21.2 percent; between Rs.11-20 p.m., were 19.1 percent; and only 9.8 paid rent, over Rs.20 p.m. The rent or imputed rent for slum tenements, as assessed, after adjusting for capital and recurring subsidies, is about Rs.58-173 p.m.

10.23 As stated earlier, in Chapter-V, less than 15 percent of the slum and squatter households have pucca houses - but they also did not escape from the malady of congestion and overcrowding since little less than 3 persons lived in a room-and more than three-room houses were held by only about 10.

percent of the households - and three-room houses by only 6 percent of the households; nearly 75-90 percent of the households had no windows; 66 percent, suffered from water-logging; people had in the houses animals as inmates; community services were also poorly available. All-told the rent-paying capacity was largely at a destitution level. This demands that the income/expenditure levels may better be seen and analysed in order to determine the ability to finance the capital-structure of owned-house or the recurring rent-paying ^{by tenants} the former is dependent on the 'savings capacity' and the latter on the 'capacity to incur recurring or current consumption expenditure'. The income and expenditure almost balance (or leave deficits in income) for 532 households, out of 1000

households (refer to Table 6.10 of Chapter-VI) and only 468 had registered their responses as savers in the month of June, 1976.

Table-10.07: Expenditure, Saving Capacity Yearly Exp., Average annual Savings, Total Savings of 30 years - and deficits (or subsidy) against minimum cost of a Minimum Dwelling plus Minimum Land plot.

Expenditure Monthly (in June 1976) (Rs.)	Mid-part of the classes (Rs.)	No. of Savers	Average rate of saving (assumed)	Yearly Expd.	Average amount of annual savings	30 yrs saving	Deficit or Surplus in Savings for houses costing 13 Rs. 10,000
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Up to Rs.100	75	10 (1.0)	5%	900	45	1,350(-)8650 (86.50)	
Rs.101-150	125	21 (2.1)	6%	1500	90	2,700(-)6350 (63.50)	
Rs.151-200	175	55 (5.5)	7%	2100	147	4,410(-)5590 (55.90)	
Rs.201-250	225	56 (5.6)	8%	2700	216	6,480(-)3520 (35.20)	
Rs.251-300	275	109 (10.9)	9%	3300	297	7,910(-)2090 (20.9)	
Rs.301-500	400	146 (14.6)	10%	4800	480	14,400(+4400	
Rs.501-1000	750	64 (6.4)	12%	9000	1080	32,400(+22400	
Rs.1001 and over	1200	7 (3.5)		14000	1680	50,400(+40400	
<u>Sub-Total Savers</u>		468 (46.8)		-	-	-	-
<u>Sub-Total(Non-Savers)</u>		532 (53.2)					
<u>Total</u>		1,000 (100.00)					

10.23 From the data worked out in Table 10.07, it follows from Col.8 that besides 53.2 percent of 'non-saver' households who cannot meet capital cost of a house, there are as many as 251 households (or 25.1 percent) though they are part of 468 Savers, yet they are partially meet the capital cost. Of the latter 251 households, 10 need a capital subsidy of Rs.8,650 (or 86.5%) each (i.e. aggregating to Rs.86,500); 21 households

(13) See Annex-10.01, in regard to 'housing cost' as a "multiple" of the Average Annual Income of a family/household in some selected ESCAP countries.

need a capital subsidy of Rs.6,350 (or 63.5%) each (that is, in aggregate, Rs.133,350); 55 households need a capital subsidy of Rs.5,590 (or 55.91) each (that is, in all Rs.318,040); 56 households received a capital subsidy of Rs.3,520 (or 35.2 percent) each (or Rs.197,120); and 109 households need a capital subsidy of Rs.2,090 (or 20.9%) each (or Rs.2,27,810). The Central/State/Local governments of Kanpur city, have to realise that nearly 78 percent (or at least 75 percent)¹⁴⁾ of the slum and squatter households do need capital subsidy - of which 53.2 percent (or two-thirds (or at least 50 percent) need 100 percent; and another one-third (or at least 25 percent) need capital subsidies which vary and range between 21 percent to 86.5 percent subsidies. If there are about 125,000 slum and squatter households, presently, in Kanpur city the capital subsidy is needed by three-fourths (that is, about 96,000 households - of which 64,000 need full subsidy - of Rs.64,000,000 or Rs.640 millions and for another 32,000 households at varying rates, as just mentioned, Rs.173.5 millions (or actually Rs.813.5 millions¹⁵⁾). For all the eight 'million(+) cities, the capital subsidy amount will be around Rs.500 crores, which may, however, be phased over next 25 years - divided into five quinquennial plans - each plan wanting Rs.100 crores (or Rs.1000 millions) - to eliminate the existing backlog of slum and squatter settlements in existing eight 'million(+) cities.

14) A detailed study of eight squatter settlements of Manila, in 1963, shows that no less than 85 percent have income below subsistence level.

15) In parenthesis, it may be stated that for the rest of the other seven million(+) cities slum and squatter households are included, they total presently to 10.9 million people or 2.2 million households (Table 10.03). If three-fourths 0.55 million households are unable to build houses without capital subsidy; nearly 0.36 million needing full capital cost and another 0.19 million capital subsidies varying at rates of 21%-86.5%. The total capital subsidy will be Rs.3,600 million + Rs.440 millions - making a total of Rs.4,040 million; and for the eight 'million (+)' cities, Rs.4,851 million (or say Rs.500 crores)

10.24 Basically it is although assumed that families/households convey identical connotations - though conceptually such an assumption is not correct. It was done primarily to avoid terms and concepts used earlier - and to facilitate temporal and spatial comparisons. Further, it is to be assumed that slumsneed whole-hog programme, if there is determination to call off their existence ... in terms of locations but primarily in terms of removing conditions of slums; The financial estimates in regard to all programmes, schemes, and plans are in current prices of which the time-canvas spreads from "1975-76 or 77"; thereafter the financial estimates may be also read into the constant prices of '1975-76 or 77'. But it is more relevant to translate financial estimate into current prices, if possible, every year because of inflationary pressures - which range between 30-60 percent every five years. Valuation in constant prices is conceptually correct for analytical aspects or for new theorising but for programme implementation it is more practical to translate financial figures in current prices if they change is appreciable.

10.25 With economic stability, in quite many developed and developing countries, the general price rise is around 3 percent per annum; and the building cost indices in such a price situation march upwards by 6-7 percent per annum. If inflationary pressures mount up at a rate around 8-10 percent or higher in general price rise, the building cost indices move upwards by 15-20 per annum; this type of situation worked during 1972-75 in many of the countries; and the arresting of inflationary speed has been partly effective since 1976 and the prices are ^{still} rising by about 8 percent. With such a virile movement in price levels, to expect that the building cost indices will not be heated is not within the ambit of possibility.

10.26 Earlier, in Table 10.06, it has been shown that for providing dwellings to the slum and squatter households, there will be a capital expenditure of Rs.1,095 millions on building

materials, in the first 5-year plan (1977-1981); Rs.1,248 millions, in the second plan (1982-86); Rs.1,401 millions, in the third plan (1987-91); Rs.1,533 millions, in the fourth plan (1992-1996); and Rs.1,708 millions, in the fifth plan (1997-2001). The financial expenditure to be incurred on different building materials will be according to the weighting diagram. It may be reiterated, that the weightage given to materials, is 73; and for labour, 27. The National Buildings Organisation¹⁶⁾ weighting diagram presently has its limitations - particularly (a) in view of a sizeable change in the pattern of materials inputs, (b) rise in prices of materials unevenly under the inflationary pressures or during the 1970's, and (c) minimum wages fixed for the skilled and unskilled construction labour. But, there is no attempt made here to disturb the diagram.

Capital Expenditure and their Dis- 10.27 In the plan periods, the estimated amounts for the capital expenditure on various building materials are shown in Table-10.08 as also that ^{of} total capital investment tribution on dwellings under Col.(2) of the table. The total capital expenditure for the period (1977-2001) for 'steel' will be major building materials Rs.957 millions; Rs.150 millions, in the first plan; Rs.171 million, in second plan; Rs.192 millions, in third plan; Rs.210 millions, in the fourth plan; and Rs.234 millions, in the fifth plan. Similarly, for 'timber' the total capital expenditure, will be Rs.1,254 millions; Rs.195 millions, in the first plan; Rs.222 millions, in the second plan; Rs.250 millions, in the third plan; Rs.273 millions, in the fourth plan; and Rs.304 millions, for the fifth plan. For 'cement', the capital expenditure will be Rs.1,723 millions; Rs.270 millions, in the first plan; Rs.308 millions, in the

16) In India, the weighting diagram for building cost indices was prepared by National Buildings Organisation with base year 1960-61; and the weights allotted are as follows:

<u>Building materials</u>	<u>Labour</u>	<u>Total</u>
<u>73</u>	<u>27</u>	<u>100</u>
(1)Steel 10	(1)Mason 10	
(2)Timber 13	(2)Carpenter-5	
(3)Cement 18	(3)Unskilled	
(4)Bricks 17	labour -12	
(5)Sand 7		
(6)Aggregates 8		

Table-10.08: Capital Expenditure on major Building Materials during the five quinquennial plans during (1977-2001) on Dwellings construction in Kanpur for Slum and Squatter Households.

Sl. No.	Plan Period	Total Capi- tal Expen- diture on materials (in million)	Steel	Timber	Cement	Bricks	Sand	Aggregates
			(10%)	(13%)	(18%)	(17%)	(7%)	(8%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I	1977-81	1,095(1,500)	150	195	270	255	105	120
II	1982-86	1,248(1,710)	171	222	308	291	120	137
III	1987-91	1,401(1,920)	192	250	346	328	134	153
IV	1992-96	1,533(2,100)	210	273	378	356	147	168
V	1997-2001	1,708(2,340)	234	304	421	399	174	197
Total		2,585(9,570)	957	1254	1723	1627	670	765

Note: Figures within brackets in Col.2 indicate total investment in dwellings' construction for Slum and Squatter Households in Kanpur.

second plan; Rs.346 millions, in the third plan; Rs.378 millions, in the fourth plan; and Rs.421 millions, in the fifth plan. For 'bricks', the capital expenditure will be Rs.1627 millions; Rs.255 millions, in the first plan; Rs.291 millions, in the second plan; Rs.328 millions, in the third plan; Rs.356 millions, in the fourth plan; and Rs.397 millions, in the fifth plan. In regard to 'sand', the capital expenditure will be Rs.670 millions: Rs.105 millions, in the first plan; Rs.120 millions, in the second plan; Rs.134 millions, in the third plan; Rs.147 millions, in the fourth plan and Rs.174 millions, in the fifth plan. As regards 'aggregates', the capital expenditure will be Rs.765 millions: Rs.120 millions, in the first plan; Rs.137 millions, in the second plan; Rs.153 millions, in the third plan; Rs.168 millions, in the fourth plan; and Rs.197 millions, in the fifth plan. All the above estimated financial capital formations, in regard to physical inputs (vis-a-vis financial market prices) shall have to be

marked upwards from one plan period to the other plan period, when the prices rise; and to mark down, when the prices decline.

Capital Costs on building 10.28 The cost of labour-inputs is in regard to these inputs in dwellings 'at site'; they involve the labour Labour-and the volume of employment generated wages paid on 'contract' or at piece rates to the skilled, semi-skilled, and unskilled labour. Generally, the unskilled workers productivity is about half. In N.B.O. weighting diagram, it appears that 15 percent of the cost incurred is on skilled labour and 12 percent are unskilled. From this it flows that the number of unskilled labourers are '24' for every 15 skilled workers or if there is 15 percent wage-bill of skilled labour, the unskilled labour's bill is 12 percent - but as the productivity is 'half' of the latter, the employment ratio of the skilled: unskilled comes to 15:24 (or 5:8). It is practical terms that for every 5 skilled workers' employment at site 8 unskilled workers are employed. Therefore the total capital ⁱⁿ _{cost for} labour can be divided in the ratio of 5:8 of skilled and unskilled by allocating 15 percent of the total cost for skilled and 12 percent of the unskilled. The details are shown, for each of the 5-year plans in Table-10.09. From the data in the table, it can be seen that the dwellings' construction programme for the urban and squatter households will generate the employment of 39 million man-days: 15 million man-days to the skilled building labour and 24 million man-days to the unskilled building labour in the first plan (1977-81); 44.875 million man-days: 17.035 million man-days to skilled building labour and 27.840 million man-days to unskilled building labour in the second plan; 49.992 million man-days; 19.2 million man-days to skilled building labour and 30.792 million man-days to unskilled labour, in the third plan; 54.6 million man-days; 21 million man-days, to skilled building labour, and 33.6 million man-days to unskilled building labour, in the fourth plan; and 61.464 millions; 24 million skilled building labour and 37.464 million unskilled building labour in the fifth plan.

Table-10.09: Total Capital Cost of labour distributed between Skilled & unskilled Labour for five quinquennial plans during (1977-2001) on Dwellings construction in Kanpur for Slum and Squatter Households.

Sl. No.	Plan Period	Total Capital Cost of the Labour Inputs (in Rs.mill- ions)	Distribution of Labour Capital Cost at Site				Total emplo- yment at Site (col. 4 + 6) man-days	
			Skilled		Unskilled			
			Amount in Rs. Million 15% of total cost.	No. of emplo- yees man- days @ Rs.15 per day	Amount (in Rs. million) 12% of total cost Rs.	No. of emplo- yees at Rs7.5 per day (man- days)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
I	1977-81	405(1,500)	225	15.00	180	24.06	39.00	
II	1982-86	462(1,710)	256	17.04	208	27.84	44.88	
III	1987-91	519(1,920)	288	19.20	231	30.79	49.99	
IV	1992-96	567(2,100)	315	21.00	252	33.60	54.60	
V	1997- 2001	632(2,340)	351	24.00	281	37.60	61.46	
<u>Total</u>		<u>2585(9,570)</u>	1435	-	1,152 (or 1150)	-	-	

10.29 However, it is more significant to translate into man-days employment estimated above into man-year employment of the building labour. In a year 300 working man-days are achieved ordinarily by any worker; but in the building construction, due to irregular employment and also the factor of unemployment in some seasons reduces man-days - which may be assumed as 250 man-days ^{2 year}. The skilled building labour on average will earn Rs.3,750, a year which on an average makes Rs.230 per month; and the unskilled labour Rs.1,875, a year or Rs.115 per month on an average. Table-10.10 shows the estimates of plan periods and annual employment volume, that will be generated for the skilled building labour and unskilled building labour out of the dwellings construction programme for the slum and squatter households in Kanpur city.

Table-10.10: Annual Employment volume for the skilled and unskilled building labour that would be generated by the implementation of the dwellings construction plan programmes for Slum and Squatter households in Kanpur City in 25-years (1977-2001)

Plan Periods	Man-days employment (in millions)			Man-year employment (in millions)			Annual income in 1976-77 prices ski - unski lled lled (Rs.)		
	Skilled	Unskilled	Total	Skilled	Unskilled	Total	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)				
I 1977-81	15.00	24.06	39.00	0.06	0.096	0.156	3750	875	(0.033)
II 1982-86	17.04	27.84	44.88	0.068	0.111	0.179	"	"	(0.036)
III 1987-91	19.20	30.79	49.99	0.077	0.123	0.200	"	"	(0.40)
IV 1992-1996	21.00	33.60	54.60	0.084	0.132	0.216	"	"	(0.043)
V 1997-2001	24.00	37.46	61.46	0.096	0.150	0.246	"	"	(0.049)

Note.

- (1) However, under the welfare programmes and to achieve egalitarian policy—the wage-levels will relatively move upwards; and to that extent mark-ups in the yearly wages shall have to re-casted along with current money wage-levels duly adjusted to changes in consumer price-indices.
- (2) Figures within brackets under Col.7 indicate average annual requirements of building construction labour in different plan periods—primarily for construction of slum and squatter households' dwellings; as these requirements would range about 40% of the total requirements of the Kanpur city's construction labour's requirement an additional multiplication of '1.5' shall have to be applied to determine the strength of construction labour.

10.30 The requirements of the building construction labour in Kanpur city for providing dwellings' construction for slums and squatter households' dwellings will be 0.156 million: 0.06 million of skilled building labour and 0.096 million unskilled building labour, in the first plan.

(1977-1981); 0.179 million; 0.068 million of the skilled building labour and 0.111 million of the unskilled building labour, in the second plan (1982-1986); 0.2 million; 0.077 million of the skilled building labour and of 0.123 million of the unskilled building labour, in the third plan (1987-1991); 0.216 million; 0.084 million of the skilled building labour and 0.132 million of the unskilled building labour, in the fourth plan (1992-1996); and 0.246 million; 0.096 million of the skilled labour and 0.15 million of the unskilled building labour, in the fifth plan (1997-2001). The average annual requirements, for building of slum and squatter households' dwellings, the skilled and unskilled building labour, in Kanpur city, for the 1st, 2nd, 3rd, 4th and 5th plan will be 3,300, ^{total} 36,000, 40,000, 43,000, and 49,000 respectively. The annual average requirements of the construction labour will be around 82,000, 90,000, 100,000, 108,000, 122,000 during the 1st, 2nd, 3rd, 4th and 5th plans. Underlying assumptions for all the estimates of capital cost and construction labour (for the slum and squatter housing, other housing and building and non-building constructions) are that no back-logs and shortages will be left at the end of year 2001, in Kanpur city.

10.31 Already in Kanpur city, the size and proportion of the construction labour dwarfs as compared to Agra and quite many of the metropolitan and class-A and B cities in India and also falls short of the all-India proportion of construction labour to working population. In 1961, in Kanpur city, the construction labour had a size of only 8,004 persons (forming only 2.5 percent of the working population), in 1961. ^{It turned down to 4,537 persons in 1971.} The proposed proportion for the year 1991, in the "Integrated City Development Plan of Kanpur Metropolis", - is 6.5 ^{percent} making a size of 52,500 persons. The rise in the size of construction labour suggested by 5.5 times - and its proportion raise is also by 2.6 times - and can be labelled as a bold step.

/been

step. But employment in any sector, is dependent upon the active production of 'goods and services' - if that does not come through, the employment will decline or will not increase. In case of house building activity Kanpur metropolis has been /the fast increase in the size and proportion of slum and squatter colonies. The proposed raise in 17) the size and proportion of the construction labour/in I.C.D.P is to come through in 1991; /falls short of the requirements of the back-logs in eliminating the housing and infrastructure and additional needs that will develop over time upto 1991 and later upto 2001.

10.32 Suitable regular and 'crash' programmes - to develop the labour force for skilled vocations in building industry as well as for 'initiation, into work' /handling the unskilled operations - is essential and demands urgency. Institutes for training in building trades - may develop training programmes with multi-shift arrangement; its immediacy is compelling to develop 5 or 10 times the size of construction labour in existence in Kanpur city.

10.33 The policies for urban development/re-development, and more so for slum and squatter population, demand for integrated social and economic development plans - in which master and urban plans should offer primacy to community and essential services and their efficient utilisation. However, all such steps should have a pre-view, in respect of slum and squatter households, so that the objective of 'employment augmentation' precedes any indiscriminate re-orientation for re-location of slum and squatter population. Again, the most important factor to prevent growth of slum and squatter settlements is the massive investment (integrated with capital-cum-recurrent subsidies) in housing for low-income households - along with optimal-sized reception centre for provisional stay for the migrants for a few weeks.

17) I.C.D.P. for Kanpur Metropolis, while mentioning the construction labour's quantum and proportions has averred on page 4, that, in 1961, the labour was 8,004 persons (2.5%) and has projected for 1991 52,500 persons (or 6.5%) on page 6. This might raise qualms on the projections and bases when reference is made to 1971-census data - which registers only 4,537 persons (or 1.2 percent) of the working population; the qualms will be not only for Kanpur Development Authority, but also for Registrar-General of India, Director of Census Operations (U.P.) and policy makers in the Govt. and researchers in Universities/Research Institutes.

The size of investment in housing as a whole should be around 15-20 percent (See Table 10.11) in any urban or rural set-up (or area) of which about 60-65 percent should relate to the time-bound action oriented programme for raising the residential accommodation according to biological needs, of low-income households¹⁷, who easily constitute about 70 percent. As a counter-action to migration, the creating of basic facilities^{in rural areas} equivalent to urban areas in respect of 'employment' and 'essential facilities', will go a long way to reduce pressure in urban areas; however, this will not remove the prepared vigilance on the part of urban authorities. In any case, ^{within} basic facilities, the highest and immediate priority will have to be for provision of potable water supply - along with environmental hygiene. Above all, the land-use allocations will be innocuous non-implemented show-windows unless the developed land for housing and other attendant development is created in advance - for which implementation action should be made five years' in advance, since various processes and procedures take that much time.

10.34 Both for land development and housing constructions for the low-income households (and slum and squatter households), the estimated financial cost, at once looks for the 'mobilisation of the financial resources' within the urban system, as far as possible. The slum and squatter population have 'innovative and emerging' faculties; and such faculties need to be awakened through suitable psychological approaches in engendering the propensities of hard-work,

18) Low-income households, conceptually, are those who have annual income-levels below that of the average household (or below per capita income) in the urban/rural regions of a country. In India, in current prices, considering average household size at 5-9, the average household income will be about Rs.4,500 ; hence, the household having income below Rs.4,500 will be regarded as low-income households. In slum and squatter settlements about 80-85 percent of the households will come under the category of low-income households.

such as pouncing on the 'sites and services', augmented savings.¹⁹⁾ Nonetheless, in financing the dwellings' and basic facilities programmes, the public sector resources will, in any case, be the crucial and major factor - besides increasing ^{the} role that of the institutional credit system. A specific kind of 'revolving fund' can also be created - to be operated by the Kanpur Development Authority - in which the organised employers can contribute/or obliged to contribute. In addition the centre and State governments should devolve grants either through budgetary resources or by negotiating short-term loans and/or grants from foreign resources (that is, the friendly countries and international organisations such as U.N., UNDP., IBRD., WHO., FAO's 'World Food Programme' ILO., USAID etc. and self-help or Mutual Aid. Also 'information system' should be properly developed to disseminate information to the builders, workers, technicians to effect economies 'in costs of construction'- arising out of research findings and 'exchange of knowledge' from various national, international organisations. Also the needs of the slum and squatter populations' needs be regarded as 'human rights'- in particular in regard to potable water, education and environmental hygiene.

/by

/restructuring

18) The economic uplift is possible for slum and squatter households (1) creating association to face common challenges in collaboration with urban and state governments; (2) Exploiting the slum and squatter population as an important consumer market as well as an important labour resource for urban needs; and (3) to / the fiscal, direct and indirect tax contributions - made by slum and squatter population to the governmental system - by providing more than mere ' quid pro quo' - which also is not being done by urban governments.

10.35 In the international thinking, of late, it is being realised that despite poverty, the slum dwellers and squatters have an ethos of community sense and drive for social improvement - only problem is to organise them since they are dis-organised. An investment 'in them or for them', is analogous to 'human capital formation' ⁽²⁾ towards enriching the processes of rejuvenation of men and their institutional complex to enable catalytic phenomenon. Optimisation in productivity and capital formation in housing ²¹ will all the potentiality to ward off the phenomenon of poor-quality of slum and squatter clusters. Housing being a heavy-investment asset for any household - absorbing life time savings (or 3-4 times the average annual income), a well-thought out public policy when enunciated can create prospects for a proper implementation strategy. To satisfy the needs of any localised population in a city or region of a nation, requires 4-6 percent of G.N.P. to balance (1) the neutralisation factors of 'depreciation' of dwellings (by 2-3 percent) and (2) growth of new population/households by (2-3 percent) either by natural-growth or/and immigrations; in consequence, involving about "one-fifth to one-fourth" of the G.F.C.F. (gross fixed capital formation). The developing countries, having a sizeable back-log of dwellings' shortages and poor-quality of dwellings require perhaps more investment in housing to arrest the growth in slum and-squatter population/households and to eliminate the back-log of the stock of slum and squatter settlements.

10.36 - In "ICDP for Kanpur Metropolis", under a 23-year (1967/68-1991) perspective plan the residential land use will grow to 3.1 times of what was in 1967-68 (op.cite: Table 10.05),

2) Since investment in social sectors (e.g., education, health and housing) in relatively less visible, it usually does not command sufficient attention from Governments and policy-makers. Yet, for genuine growth, this human investment is quite as important as any merely material investment" (C.M. Palvia: in the United Nations: "Improvement of Slums and Uncontrolled Settlements (Sales E.71.IV.6, 1971 page, 111)

21) See Annex-10.01

and for that land acquisition and development cost plus dwellings has been estimated by I.C.D.P. at Rs.831.8 millions - for high-income, middle-income, low-income and weaker section households, for the period of six years (1975/76 to 1980/81) by providing 25,500 plots, against which the receipts to be received, from the would-be owner-occupiers, are estimated at Rs.713.37 millions - leaving a shortfall of approximately Rs.118.5 millions²²⁾ - minus subsidy of Rs.15.9 millions, for weaker sections as 'grants' from the Government, whereas, what has been estimated in this Report, just for eliminating or/and improving about one-fifths of the existing 'slum and squatter dwellings'^{1b} each ^{5-year plan} and to ward off fully the growth of new 'slum and squatter dwellings', the subsidy itself will be Rs.813.5 millions, for the 25-year period (1977-2001) - making an annual average of about Rs.32.54 millions. Thus, the insufficiency of the provisions made by the I.C.D.P. just for 'subsidy to weaker sections' over 6-years of Rs.15.9 millions is obvious; ²³⁾ also the targets of financial mobilisation of resources to solve the real problem of the depressed class of the households - living in Kanpur's slums and squatter settlements.

Measures
for Mobil-
ising Finan-
cial Resour-
ces.

10.37 One of the usual way is to provide to the autonomous government bodies at the Central and State levels (or even at local levels); by the Central/State governments. Such institutions are the Housing and Urban Development Corporation (HUDCO) - ^{and state level} Housing Boards, and Slum Boards (such as in Bombay, Madras, Bangalore) at State-levels in which capital amounts are given by the Central and State governments (as a part of capital budget of the five year plans). At the local/urban level also the Town Planning Authorities are given

²²⁾ To be obtained from (1) own resources Rs.15 millions; (2) HUDCO, Rs.40 millions; (3) Institutional credit (from I.I.C., Housing Board, etc.) Rs.30 millions; and seed-capital as a 'Revolving Fund', of Rs.70 millions.

the tasks of executing housing programmes, (including slum and squatter housing) such as Delhi Development Authority, Bombay Metropolitan Planning Authority, Madras Town Planning Authority, Kanpur Development Authority etc. with a "Revolving Fund". The financial allocations given form the crucial as well as seed capital for the authorities. The government allocations whether plan or budget also set out certain amount for recurring subsidies, as rent-subsidy, interest subsidy, sanitary services subsidies, etc. Most of the social housing schemes, in India, have adopted the product mix of capital and recurring subsidies.

10.38 Other institutional system for the flow of long-term capital resources for housing (including the earmarked allocations for slum and squatter clearance/improvement) are given by the Life Insurance Corporation of India - which has proved as one of the major providers of funds to HUDCO, State Housing Boards and Slum Boards, Metropolitan Development Authorities, and the Town Authorities of the public sector industrial townships.

10.39 Special and specific taxes are levied in some countries (such as in Senegal, Democratic Republic of Congo, People's Republic of the Congo, Uganda and Zambia) on all salaries, of 4 percent in the ratio of 50:50 payable by the employer and employee). In India, we have Coal and Mica Mine Funds, for houses for the specific miners. So also in some cases, tax subsidies/exemption can be provided on major building materials by the Central/State/local authorities to augment the financial resources indirectly of the low-income households/slum and squatter households.

23) The use of "revolving fund", for land/acquisition and development as also for housing construction adopted by the Delhi Development Authority was started with Rs.50 millions about 15 years ago and this fund was so fast revolving that it has grown to about Rs.1,500 millions, of late, and the HUDCO has been equally moving fast on the same path, in financing the States, State Housing Boards, Metropolitan Planning Authorities, and some municipal corporations,

10.40 In Tunisia, Fonds National d' Amelioration de l' Habitat (National Fund for Housing Development) established in 1961, aims at promoting the restoration to habitable condition, repair, sanitation, and improvement of buildings intended primarily for dwellings. This fund is being built by levy of 4% on the rent earned by the owner. This easily will be about 40% of the property-tax earned, in India by the Metropolitan Municipal Corporations/Boards/Committees.

10.41 These are a few recognised social security funds-such as Pension Funds, Provident Funds, Employees Insurance Funds, price-stabilisation funds, market board funds, postal savings and postal insurance funds, and savings bank funds, and State Housing Finance Corporatives (as in India) which have the potentials of long-term investments and these can be hopefully and sizeably deployed for housing finance.

10.42 It is of value and relevance to cite the practices followed in various countries of Asia, specifically for housing programmes and slum and squatter populations' housing. In Ceylon, annual grants are given to local governments for slum removal and improvement. In the 10-year Economic Development Programme (1958-1968) had provided 20% investment allocation for housing - in the background of 4% allocated in the earlier five year plan (1954-58); and when the aforesaid 10-year programme was reviewed and another 10-year plan (1962-1972) was drawn, a provision was made for replacing 87,000 slum units. And it is recognised by the Government that one-third of the allocations for housing should flow for subsidised housing, slum-clearance and employee housing. In China(Taiwan), a 'National Housing Administration' exists to deal with slums and squatters and in the 5-year plan (1968-1972), it was intended to build nearly 60,000 units per annum of which 5000-1000 units are to be squatters only (excluding slum-dwellers). In Hong Kong, under the ten-year "rolling" housing programme, the current rate of constructing housing units is '13' per thousand of population. In Japan,

the main fountains of housing finance are (i) general account funds - transferred to special accounts composed primarily of industrial investment; (ii) general account funds - made up primarily of tax reserves; (iii) postal saving; (iv) postal life insurance funds; (v) bonds of public and private corporations, and (vi) reserve funds of welfare pension insurance. Institutionally, the Japan Loan Corporation (1950) and Housing Corporation (1955), respectively assist (a) in acquiring and developing land and also in constructing groups of houses for sale/rental to industries for housing their employees; and (b) in constructing multi-storeyed fire-proof buildings in or near large cities and rents them to middle and low-income households. Japan Housing Corporation, gets loans from twenty insurance companies at 7.5 percent interest with 7-year amortization period. Long-range ^{goal} in Japan's housing policy is 'one house per family' and 'one-room per person', by 1980.

10.41 In Asia and Far East, the development of social housing and the relevant basic facilities, in 1970-prices, will per annum involve an investment of US \$ 3,000; and other US \$ 3,000 in Africa and Latin America - making a total of US \$ 6,000 per annum for the developing world, because about 80-85 percent of the households do not have income levels or savings propensities to enable them to hire or buy a house. Therefore, governments have to develop strategies to offer fiscal measures of: variable interest rates, amortization periods, rent-reliefs, tax-subsidies, capital subsidies, 'site-and service' programmes. Since these countries do not have the capacity to mobilise all finances from domestic resources, it is important that external funds/aid flew to the developing countries from the international community - including international organisations.

10.42 The measures for mobilising financial resources by different countries, need not necessarily be suitable for India; in particular imposing tax on 'salaries' or 'rent' may not be welcome in India. However, the employers' contribution

complemented by the wage-earners in equal amounts may find a potential source - specifically in organised industries and in institutionalised business/professional houses/agencies; experiments in subsidised industrial workers' housing schemes and also in levying of cess for housing of miners on the exports of products of coal and mica mines. In essence, the financial funds (in the form of partly capital subsidies) provided by: (1) Government to the autonomous bodies, like HUDA, State Housing Boards, Slum Boards, Metropolitan Development Authorities, etc. as parts of plan allocations, is the base source of finances; and (2) Funds made available by social security funds, such as, of Life Insurance Corporation, Provident Funds, Industrial Employees Security Funds, Postal Life Insurances and savings funds. In addition, (3) the creation of permanent 'Revolving Fund' can be an incessantly augmenting fund-raiser and multiplier. In urban centres (moreso, in big metropolises), (4) the old slum and squatter colonies, when ripe for inevitable clearance, and if these are sprawls, can provide land for slum-dwellers as well as the residue surplus can prove a gold-mine when disposed off in auction in case of central slum areas.

10.43 Kanpur Development Authority, in its I.C.D.P. (1976-81) has taken into account, in a great measure, the foregoing financial resources; and within these 'disposal of land' on the bases of discriminatory price policy has been given primacy. The estimated receipts by disposing of land are Rs.198.4 millions in lieu of 25,500 plots: (1) Rs.26.4 millions, from economically weaker sections for 10,000 plots(measuring 312 acres, each plot being 150 sq.yds); (3) Rs.62.4 millions, from middle-income households for 4,800 plots (measuring 200 acres-each plot being 200 sq.yds); and (4) Rs.9.6 millions, from high income households for 700 plots (measuring 55.5 acres-each plot being 400 sq.yds). The prices intended to be charged per sq.yd. from economically weaker section, low-income households, middle-income households, and high-income

Table-10.14: Cost of Acquisition and Development of Land in Kanpur City of different uses of land and Receipts on the Sales of Saleable Land (Under ICP 1976-1981)

Land Uses	Area (in acres)	Net Saleable Land Area (in acres)	Acquisition cost (in Rs Mn.)	Development cost (in Rs Mn.)	Total cost (in Rs Mn.)	Receipts of land Sales (in Rs Mn.)	Total Surplus (Rs.in Mn.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I Residential	2,000	1,200 (60%)	90,000	210.00	300.00	319.440	
II Commercial	301	120 (40%)	13.545	31.605	45.150	58.080	
III Industrial	480	336 (70%)	21.600	20.640	42.240	42.282	
IV Warehousing	72	72 (100%)	3.240	2.520	5.760	9.583	
V Educational (incl.colleges & Research Centres)	100	100 (100%)	4.500	3.500	8,000	13.310	
I Hospitals	67	67 (100%)	3.010	2.345	5.355	8.918	
II Transport Nagar	122	45 (37.5%)	5.490	13.590	19.080	21.403	
III Bus Terminals	40	40 (100%)	1.800	1.400	3.200	5.324	
Green Belt							
(i) Cattle colony	169	100 (100%)	7.600	17.745	25.345	26.620	
ii) Parks & open space	150	6.750 (100%)	6.750		6.750	-	
Water Works	56	56	2.520	1.960	4.480	7.453	
Master Plan Road	100	-	4.500		4.500		
TOTAL:	3,647	2136	164.555	305.305	469.865	512.130	42.265

Notes: (A) Development cost in Col.5 includes (1) roads, (2) sewers, (3) storm-water (4) drains, (5) street lighting, (6) parks and arboriculture, (7) community services, (8) trunk services, (9) maintenance for two years, (10) contingencies and overhead (8.4% approx. of total cost), and (11) interest.

(B) Figures within brackets under col.3, denote the percentages of net saleable area out of total developed areas shown under Col.2.

households are respectively Rs.55, Rs.60, Rs.65 and Rs.70.²⁴⁾ For commercial plots' sale price is prescribed at Rs.125 per sq.yd. (since 40% area is taken as available for sale); for industrial plots, sales price is put at Re.30/- per sq.yd. (considering that 70% area is taken as available for sale); for community services' plots, sales price is Rs.20 per sq.yd. (allowing 100% of developed land area, for sale). The summary picture, of I.C.D.P. estimates of 'Expenditure' on and receipts from different uses of developed land, is given below.

10.44 What is stated about four possible sources of financial flows (including disposal income of the developed plots) there is an important source of 'external' finance' about which mention has been made earlier as well. The use of this resource has been taken note of by Kanpur Development Authority in I.C.D.P. - particularly for the basic facilities of water, sewerage, prevention of river pollution, transport facilities, and slum-clearance and improvement. The source deciphered is the International Bank for Reconstruction and Development (IBRD- popularly called as 'World Bank'). The total amount to be agreed/or expected is Rs.115.6 millions: Rs. 91.7 millions for water supply ; Rs.27.3 millions for sewerage; and Rs.6.6 millions (all the three projects to be executed by Jal Nigam or Water Supply Corporation). Another Rs.1,00 million is to be received for transport facilities- (for which the executive agencies will be Railways, Bridge Corporation, Kanpur Development Authority and U.P. State Roadways Corporation. Yet another World Bank finance, expected for Slum Improvement and Clearance is Rs.10.0 millions.

10.45 Thus from an important international institution - that is, World Bank (the Specialised agency of the United Nations) the total funds expended are Rs.315.6 millions

24) However, the sale price fixed at Rs.65 and Rs.70 per sq.yd. for middle-income and high-income households respectively in metropolitan cities is on a lower side; it is suggested that these sales should be by auction.

millions (See Table 5.2, page 52 I.C.D.P. Kanpur). Thus, one of the important financial international resource of Rs. 315.6 millions is available to meet the requirements of first plan - (1977-1981) of this Report to the tune of Rs. 1,500 millions - which means that foreign assistance is amounting to more than one-fifth of the first-plan. However, there are other foreign agencies which might decide to grant funds (either as 'grants' or as soft-loans) for uplifting the quality of life for the slum and squatter households. These institutions are two affiliates of I.B.R.D. - International Development Association (IDA), International Finance Corporation; the IDA gives 50-year loans at $\frac{1}{2}\%$ interest with the repayment holiday of 10 years. So also U.N.D.P. (United Nations Development Programme) gives development loans to the governments - directly or through U.N.D.P. executing Specialised Agencies such as IBRD, IMF, FAO, WHO, UNIDO etc. partly in 'grants' and/or partly in 'loans'. In regard to capital cost aspects, per capita for urban services (both essential and community facilities, and for recurring costs per capita, in India's towns are dealt under paragraphs 10.05, 10.06; and total capital costs estimates over 25-year period (1977-2001) phased into 5-quinquennial plans are given under paragraphs 10.16 to 10.20 and in Tables-10.06. Housing, for the first time in 'the Action Programme of the General Assembly for the second United Nations Development Decade' (U.N. Sales E.71.II.4.2) while giving a fall of rise in G.N.P. of 6 percent or more per annum received priority; wherein it is stated that 'housing facilities should be expanded and improved, especially for low-income groups and with a view to remedying ills of unplanned urban growth and lagging rural areas' (p.5). For more details about fountains of financial resources see Table-10.12.

²⁵⁾ During these fiscal years 1963/64-1965/66, IBRD (and its two affiliates) made total commitments of U.S \$ 3631.13 millions; US \$ 2672.35 millions, IBRD; US \$ 876.39 millions, IDA; and US \$ 82.39 millions, I.F.C. Their respective commitments in housing sector have been for the same period, US \$ 50.17 millions, US \$ 54.60 millions, and US \$ 10.64 millions - forming 1.9%, 6.3% and 13.4% of their total commitments. This was so ten years back; after that IBRD has been more liberal with higher allocations and priorities to give long-term funds to developing countries for 'housing and urban development' for water-supply system, land development, sewerage, building materials industries, etc. India's metropolitan towns are already the beneficiaries in this regard. (Also see Annex-10.02 for total foreign assistance.)

Table-10.12: Estimated Mobilisation of the Flow of Domestic and External Resources of Finance - for meeting the costs of 25-year Programme (1977-2001)-phased through 5-Quinquennial Plans for Slum and Squatter Households in Kanpur City

Resources	Plans	First Plan (1977-81)	Second Plan (1982-1976)	Third Plan (1977- 91)	Fourth Plan (1992-96)	Fifth Plan (1997- 2001)	Total
		(in Rs. millions.....)	(in Rs. millions.....)	(in Rs. millions.....)	(in Rs. millions.....)	(in Rs. millions.....)	(in Rs. millions.....)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. (i) Own Resources of all the Slum and Squatter Households @ 5% ^(a)	125 (0.25 houses in Mn.)	140 (0.28 houses in Mn.)	160 (0.32 houses in Mn.)	175 (0.35 houses in Mn.)	195 (0.39 houses in Mn.)	795	
(ii) Self-help	50	60	70	80	90	350	
2. Government Plan Sector (Centre, State, Urban) ^(b)	1000	1100	1200	1300	1400	6000	
3. Institutional (IIC, PF, IESI) Postal Life Insurance Com Banks, Coop Banks etc. ^(c) Employer & Employee participation	50	75	100	125	150	500	
4. Revolving Fund (Rs.100 millions) to start in (1976-77) ^(d) (This includes land and Housing Disposal funds) ^(c)	300	480	550	600	650	2280	(Potential)
5. Foreign Resources I.B.R.D. (and its affiliates) UNDP, FAO, WHO, USAID, International Cooperative Alliance Govt. to Govt. grants & aids.	315	350	400	455	510	2030	
<u>Total</u>	<u>1,840</u>	<u>2,205</u>	<u>2,480</u>	<u>2,605</u>	<u>2,905</u>	<u>11,955</u>	(or 12,000 millions)

(does not include servicing)

- (a) It is assumed that each household will contribute on an average minimum own resources (i.e. down-payment in lump-sum or through instalments) of Rs.500/- (or 5% of the cost of land and minimum house)
- (b) Through plan, budgetary and non-plan funds' allocations.
- (c) Already Rs.20 million have been taken into account in Table 5.2 (page, 52) in ICDP for 1976-81) and added by other institutions amenable for long-term and intermediate-term loans (from Com.banks)
- (d) It is provided that Kanpur Development Authority will start with a fund of Rs.100 millions under Slum Improvement and Development Programme. There is an illustrious example of DDA in raising the size of Rs.50 million 'Revolving Fund' to develop the size of the Fund to about 25 times in 15 years.

10.46 As against, the estimates of capital costs of Rs.9,760 millions for developed land and housing, for 50 percent of the estimated Kanpur city's population, in 2001, (that is, slum and squatter of population/households), the estimated potential of Rs.12,000 millions' estimates of resources in Table-10.12, is encouraging. However, it need not be overlooked that if the resources estimated are for the total population of Kanpur city - where at the rate of Rs.3,000 per capita for municipal services alone the capital cost could be (as given in para 10.04) Rs.9,600 millions - leave aside the cost for housing of the little better-off citizenry of Kanpur city constituted of about (a) 20 percent, low-income households; (b) 25 percent, middle-income households; and (c) 5 percent, high income households. The last two groups of households will need only loan finance - which they can find and will repay, out of their current savings; however, 20 percent of low-income households, will have to seek certain proportion of capital and/or recurrent subsidies.

10.47 While we have drawn a situation and likely trends based on past experience, in big cities (namely, million⁽⁺⁾ ^{been} eight cities), it is important to know what has/happening in some of the highly urbanised and affluent countries. This look would perhaps be of help to modify our perspectives upto 2001 and also ^{will} prepare to appreciate the changes that will take place in the 21st century - when our urban population would cross '50 percent and above' as a proportion of total population in India and many of the countries in ESCAP Area, as also in the African and Latin American countries. For example, the sharpest out-migration

26) See Annex-10.03 for capital loans, interest rates, amortisation periods in case of K.D.A. Programmes and in coming receipts on account of (a) earnest money; (b) advance payment; and (c) instalment payments. Also see Annex-10.04 in regard to total expenditure, receipts, short-fall, financial resources, subsidies to E.W.S. for the period 1975/76-1977/78 under the ICDF for Kanpur Metropolis for purposes of comparisons.

is taking place in largest cities (like New York, San Francisco, Los Angeles, Philadelphia, Denver, Atlanta, Minneapolis etc.) in the U.S.A.; it is the young and better educationally-equipped, with higher incomes are leaving to reside in outer suburbs outside the municipal limits motivated by: (a) availability of low-density dwellings; (b) augmentation in job-opportunities, (c) better schools; (d) less environmental pollution; and (e) immune from crimes and congestion; (f) less tax-burden of local and state taxes; ^{and} (g) annexing of contiguous areas. It is primarily the middle-income families who are going out from central city areas to out-ward 'suburbs'. Such a radical trend when develops, in India (and developing countries) it may radically damage the utility function of the heavy investment on infrastructures, in the main part of the city. The traditional role of former cities, might as well change with advances in technology and application of science and political metamorphoses.

SUMMARY

The basic and crucial factors that need examination and action are: (a) ameliorating the current destitute conditions of living of the slum and squatter households; (b) meeting the needs of new migrants in the city(cities) who come to settle for job and habitation in the metropolis. For this action-oriented programmes which can look after the above two aspects are: (i) shifting or re-locating the slum and squatter households after evaluating social, cultural, economic, life-style and administrative factors; (ii) improving environmental basic facilities in the existing slum and squatter colonies; (iii) optimising the building programmes in between the 'have-nots' and 'haves' of the slum and squatter areas as at present city has become the abode of the poor; and (iv) thoughtful deliberations with a team of multi-disciplinary experts in allocating the inputs in various infrastructures.

Gross density, developed land density, residential density, maximum spot density, minimum spot density, percentage of total development land, are by and large higher in bigger cities. The metropolises which hold larger proportion of '100,000(+) cities, are faster breeding grounds of slum and squatter population which now forms about 37.5 percent of the total population of metropolises - and its proportion will easily grow to 50 percent by 2001, if preventive and positive steps are not taken. To-day, the slum and squatter population of eight metropolitan towns may be about 10 millions and it could easily be about 36-37 millions, if no virile are not taken quickly and continuously. For this the annual slum clearance and improvement programme will have to be of the order of 50,000 dwellings (in 1977-81) - 80,000 dwellings (in 1997-2001), in Kanpur city plus the raising of corresponding investments in the infra-structures of land development with various basic amenities.

25-year period

The total investment in dwellings and infrastructures for slum and squatter population required will be around Rs.9,570 millions during(1977-2001), in Kanpur city- of which Rs.6,985 millions will be for 'building materials', such as steel, timber, cement, bricks, sand, aggregates etc; Rs.2,595 millions, for building labours' wages; and Rs.1,914 millions in developing the required land. All this will generate additional average 'on site' employment of 33,000 persons per annum during 1977-81; and to raise level of average annual employment in 1997-2001 to 49,000 persons as compared to 33,000 in 1977-81. Nonetheless, the annual capital subsidies will be about Rs.813 millions in Kanpur city during next 5 years (1977-1981) and about Rs.5,000 millions in the present eight million (+) cities of India; or the other alternative will be the 10% of the above amounts as recurring

: 256b:

'rent' subsidies (that is, about Rs.165 millions a year in Kanpur city, and Rs.1,000 millions in eight million(*) cities).

The supply of financial resources required will necessarily demand domestic resources (such as own-resources, financial flows from central/state/urban governments, institutional finance from I.I.C., Provident Fund and other security funds, 'revolving funds', land disposal with discriminate price policy, and foreign finance flowing (from friendly governments, and international financial organisations of the U.N. family and donor country aid organisations such as USAID, CIDA (Canada), SIDA of Sweden, etc.). The last type of financial flows should be 20 percent of the total financial needs; and of any allocations for 'housing and urban development' in metropolises, at least one-third should be earmarked for slum clearance improvement programmes without using 'bulldozers' but through persuasion, participation and collaboration of the slum and squatter population/households.

Annex-10.01: Housing Cost as a "Multiple" of the
the Average Annual Income of family/
household in selected ESCAP countries.

Country	Year of income required to purchase a 30 sq.m. house.	Remarks
(1)	(2)	(3)
Burma	3.2	
Ceylon	3.0	
China (Taiwan)	3.2	
Federation of Malaya (1)	1.0	
Federation of Malaya (2)	2.0	
Hong Kong	2.9	
India	4.9	
Indonesia (1)	6.9	Permanent
Indonesia (2)	5.0	RCC
Iran	4.1	
Japan (1)	2.6	
Japan (2)	3.6	Quasi-fireproof Fireproof with RCC roof
Laos		
Pakistan	3.9	
Republic of Korea	6.6	
Republic of Vietnam	2.7	
Singapore (1)	2.6	
Singapore (2)	1.2	
Thailand	1.9	Quasi-permanent
	7.4	Permanent

Source: United Nations Finance for Housing and Community Facilities in Developing Countries • (1968-Sales No. E.68.IV. 4 - Table No. 7)

Annex-10.02: Percentage of Total External Long-Term Capital flows to Developing Countries Allocated to the Housing Sector.

Source	Estimated gross flow (1963-64)	(Millions of US Dollars)	
		Percentage to housing sector	Capital flow to housing Sector
(1)	(2)	(3)	(4)
Multilateral disbursements	1,000	5	50
Bilateral (market economies)	9,000	-	-
Public	(6,000)	4	240
Private (net)	(3,000)	2	60
Bilateral (centrally planned economies)	1,000	5	50
	11,000	2.6	400

Source: United Nations Finance for Housing and Community Facilities in Developing Countries (1968-Sales No.E.68.IV.4 -Table No.2)

Annex-10.03: Periodic Receipts of Hire-Purchase Dwellings as:
 (a) Earnest Money; (b) Advances; (c) Instalment
 by the would-be owners of 'Site and Services'
 plots', (Rs.3,000) Core Housing (Rs.6,000),
 Economically Weaker Section (Rs.8,000), Low-
 Income Group (Rs.18,600), and Middle-Income
 Group (Rs.42,600) Households under ICDP of
 Kanpur City.

Category	Periods 1975/76-1980/81	1981/82-1997/98	Total 1975/76-1997/98
			(Rs. in millions)
1. Site & Services	66.444	11.062	77.506
2. Core Housing	26.580	4.410	30.900
3. Economically Weaker Sections I & II	61.900	89.984	151.884
4. Low-Income Group I & II	85.234	138.402	123.636
5. Middle-Income Group I & II	82.496	75.264	157.780
Total:	322.676	319.122	641.798

Source: ICDP of Kanpur Metropolis (1976-81), page 61.

Notes: (a) Amortisation periods are 20 years for EWS and Core Housing; 15 years, for Low Income Group and 12 years for MIG houses.

(b) The interest rates are $7\frac{1}{2}$ percent for all except for Middle Income Group which is $9\frac{1}{2}$ percent.

Annex-10.04: Estimates of Expenditure Incurred, Receipts on Hire-Purchase Dwellings, and Mobilisation of Financial Resources during 1975/76-1980/81 under I.C.D.P. of Kanpur Metropolis as estimated by K.D.A.

Year	Expen- diture	Receipts	Short- fall	own resour- ces	HUDCO & others	Insti- tution nal Fi- nance	Seed Capi- tal	Total Col. (5+6+7 +8)	Subsi- dy devo- lution to EWS
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1975-76	64.990	25.669	39.321	2.50	5.00	5.00	300.00	42.50	0.440
1976-77	165.740	102.329	63.411	3.00	25.00	5.00	300.00	63.00	2.300
1977-78	164.245	136.057	28.188	2.50	10.00	10.00	100.00	32.50	3.100
1978-79	157.905	150.690	7.215	2.50	-	7.50	-	10.00	3.375
1979-80	149.975	150.628	(-)0.653	2.50	-	2.50	-	5.00	3.375
1980-81	129.005	147.995	(-)18.990	2.00	-	-	-	2.00	3.300
<u>Total</u>	<u>831.860</u>	<u>713.368</u>	<u>(-)118.492</u>	<u>15.00</u>	<u>40.00</u>	<u>30.00</u>	<u>70.00</u>	<u>155.00</u>	<u>15.900</u>

Source: I.C.D.P. of Kanpur Metropolis (1975/76-1980/81), pages 42, 45 and 65.

Chapter-XI : Main Recommendations

11.01 A poor man's dignity and social status is not injured by his 'poor dwelling', but by 'his poverty' since a 'cement and steel' house rather than solving the problem aggravates the situation for the poor. Therefore 'job opportunity and 'house-site' within negotiable distances; once the job is found, the slum-dwellers and squatters will erase the label of 'poverty' and will no more over time live in 'dilapidated and ghost houses'.

11.02 No housing and urban improvement strategy and the instrumental agency in a metropolis (such as, Delhi Development Authority, Kanpur Development Authority, Calcutta Development Authority or Slum Boards or Housing Boards) can make a recognisable 'dent' on the 'housing, slum and squatter malady' without institutionalising the cooperation and participation of the people/households to engender invisible traits of (a) initiative; (b) savings propensity; (c) imbibing of education and skills; (d) motivation to use-of education, experience and skill in meaningful directions - making a psychosis of development and progress. While the Government devolves loan/grant on subsidised terms - it in no case be presented as a 'charity' but only a 'duty' of the government institution to share with all the households the 'common fund' of the people' for the good of the needs of the people; no paternalistic attitudes and approaches have the potentials to catalyse fast and radical metamorphoses. Once the on-going programmes are matched and geared to the meaningful needs and cultural ethos and life-styles of the beneficiary group of people, the governmental set-ups/agencies will to their surprise that the people get enthused otherwise they get alienated. Engineering details to the minutest design and data can prove barren if these are not intermingled with the socio-economic and life-styles of the largest people.

11.03 In the urbanised human settlements in the developing countries, the managerial, academic, technological and political elites have their income levels which are as high as '20 times or more' of the working force they claim to manage. Whereas in the advanced countries of Americas and Europe (in-communist or socialist or free-enterprise countries) the income-differentials are not wide - these may be at the maximum 6-7 times - but usually only 3-4 times. The lesser the income-differentials, there is more participating efficiency and hope the 'poor' do not lose heart. When the income-differentials ^{are} high, the discontent breeds; and hope to counter the malady of destitution vanishes.

11.04 The man has hardly settled more than 40 ft. on an average, above the land surface, and in one way it is a very early need to look for land space on other planets because high-rise buildings/dwellings a vast land potential on the Earth. In countries like Australia, Canada, U.S.A., Brazil, Congo, and a number of countries in Africa and Latin America, the density of population per sq. km. is less than '25' persons.¹⁾ Yet it is true, that in India the density is about 170 per sq.km. (and even China has less than half the density per sq.km.) it is important to conserve and economise land use; moreover, in urban centres where the per capita cost of infrastructure investment is as high as Rs.3,000/- Therefore, it has been essentially recommended that for low-income-households and slum and squatter households, no separate plots be provided (which require capital subsidies, besides that for dwellings costs) and four-storey tenements be

1) Some of the countries in Africa are: Angola, Chad, Congo, Egypt, Ghana, Ivory Coast, Mali, Mauritania, Senegal, Sudan, Tanzania, Zaire, Zambia; in North America - Canada and U.S.A, in South America, Argentina, Bolivia, Brazil, Chile, Colombia; in Asia - Iran, Iraq, Jordan, Malasiya, Saudi Arabia, Yemen; in Europe - Finland, Iceland, Norway, Sweden, in Oceania - Australia, New Zealand.

raised which will augment 'financial resources' by disposing the 'conserved land' by auctioning the land required by affluent and near affluent households, and for commercial purposes. Thus the twin-objectives (that is, on the one hand economy in land - the scarce and key resource for 'housing and urban development; and on the other sprouting of financial flow from the 'conserved land'). Actually, the land supply should be related to the 'minimum size of land needed for a 'household' - which sold at subsidised rate (that is, below the cost) to economically weaker sections of the community, who constitute 70 percent of the total households; and bigger sizes of the land should be sold (by auction, where fructuous) at prices - more than cost price to middle-income and high-income households, and for commercial purposes - with a guideline that 'more the land area' plus more the income-levels - more the price per sq. m. of developed or raw land.

11.05 The financial operations of lending (besides capital subsidies) should also be super-imposed by recurrent subsidies - on interest rates²⁾,

2) Interest Rates - charged from low-income households are generally lower on mortgage finance housing loans in Austria, rate is 4 percent generally but in case of loans for Federal Housing and Settlement Fund, 1 percent; in Denmark, usually 2 percent but sometimes it might range between 3-5 percent; in Finland, for ARVA loans, rate fluctuates from 1-3 percent but since 1955 it has been at 1 percent; in the Netherlands 3-3.5 percent; in New Zealand, 1-1.5 percent; in Norway, 3.5 percent and sometimes even without interest; in Sweden, 4 percent; in Switzerland, 3.5 percent; in Bulgaria and Czechoslovakia, 4 percent; in East Germany from 'nil' for cooperatives to 4.5 percent for private houses; in Hungary and Poland, from 0.2 percent to 2 percent; in the U.S.S.R., 2 percent; in the U.S.A. 3-4 percent and in Yugoslavia between 1-2 percent. (Refer to Document No. TAO/GRN/1-1970 of the UN, page 31). In some of the developing countries, interest is 2 percent only such as in Ceylon, Indonesia and Jamaica; in UAR, 1.5 percent for rural houses.

3) rent-levels³⁾, and long amortization periods⁴⁾ - so far as they relate to economically weaker sections of the society. To amass, the investment financial funds, the efforts for domestic resources have been suggested in Table-10.12 as also the foreign resources, and some explanations and strategies have been recommended in Chapter-X. However, some more light is thrown here on specific points/resources.

11.06 The Banking Commission Report (1972), emphasized the need for setting up of specialised 'finance institution' - particularly in respect of the 'social housing' (including that for housing for slum and squatter population) as there is woefully lack of funds' for housing -in the face of required for eliminating housing shortages since the 'funds' required (as estimated in 1972) are Rs.300,000 millions - and that might easily be Rs.600,000 millions in 1977 due to inflation.

3) Rental Subsidy - Japan Housing Corporation (1955) constructed multi storeyed fire-proof rental dwellings of 'A' and 'B' Types - former for middle-income and latter for the low-income households having an income of US \$ 50 or less. For privately, financed housing, rent per Unit of 33 Sq.Metres ranges between US \$30.2 to 41.2; whereas for JHC housing, it is US \$22.8 for 52 Sq.Metres Unit and US \$4.9 to 10.6 for public operated housing units ranging between 31 Sq.Metres to 43 Sq.Metres. Tax reliefs are also granted on Registration Tax, fixed assets tax, acquisition tax. In New Zealand, rental subsidy is more than 50% of the economic rent. In the U.K., out of 4.2 million dwellings built during inter-war period by the County Councils, 1.51 million units (or 36%) were subsidised; between 1945-55, but of 2.2 million new dwellings built, 1.7 million (or 80%) were subsidised - the subsidy given was usually in the ratio of 2: 1 borne by the Exchequer and the local authority irrespective of the size or cost of dwellings (i.e. each house or flat) in the U.K. a fixed standard subsidy is paid for all the flats.

4) Amortization period - In Austria, for the loans guaranteed by the Federal Housing and Settlement Fund, amortization period is 100 years; in Denmark, 40-60 years; in Finland, upto 45 years; in France, 75 years; in Norway, 75-100 years; in Switzerland, 25-50 years, in the UK, 60 years; in Yugoslavia, 50 years; in the USSR, upto 100 years. (Refer to UN Document - TAO/GRN/1-1970, page 31).

Further, the Commission (while noting the HUDCO's role) desired that HUDCO (established in 1970) should 'shed off' its non-financial concepts and should function as a financial institution (though, of late, HUDCO has broadened its non-financial executions). The Banking Commission went further that the Reserve Bank of India should better sponsor an apex institution or to establish 'special housing fund', which might assume - country-wide role, provide primary housing market and normal market-including secondary mortgage, and institute a system and mechanism of guarantee and insurance for the repayment of housing loans.

11.07 Again, the investment fund of the Life Insurance, in 'housing' was about Rs.4,950 millions in 1973-74 through the institutional system of the Government (that is, HUDCO, Housing Boards, Urban Housing). The proportion for housing from L.I.C. is quite low as compared to the practices in other countries where from social security funds (and life insurance funds) are much higher; the Corporation should have no difficulty to double its financial flow to the 'housing sector' even now; however, at least one-third should be earmarked for 'slum removal and improvement' programmes.

11.08 A significant point in domestic financing and/or foreign financing, is related to the problems of inflationary (or deflationary) aspects, which offer a change in the purchasing power; in case of inflation, there is decline in the purchasing power of money and therefore interests of the creditor have to be protected - particularly so in case of long-term credits given for housing; and on the other in case of deflation, there is a rise in the purchasing power of money where the interests of the borrower have to be protected. In either of the cases some one suffers - whether it is a creditor or a borrower. Only a properly worked-out mechanism can offer a protection; the protection is essential in cases of aids/subsidies to be given as a housing finance phenomenon whether it relates to rent, interest, community services, taxes etc. This suggested arrangement offers

opportunity to generate social and psychological advantages. Again, an impetus is generated for augmenting employment volume site' alongwith backward and forward multiplier employment. It can be projected that a 'revolving fund' - as proposed for Kanpur Development Authority's programmes - of Rs.1,000 millions, in next 25 years (1977-2001), can finance the construction activity of around Rs.12,000 millions - in terms of turnover of sales, rise in savings propensities, and contribution of home-buyers of the constructed either by cut-right purchases, or hire-purchase instalment payments.

11.09 It is important that while preparing application for international financial aid by K.D.A. should be technical care should be taken - and it should be routed through the State Government to the Central Government who will approach the foreign governments and the international organisations (including U.N. and its Specialised Agencies.⁵⁾

11.10 As the unorganised money market shrinks with the growth in urban sector's size and also in the rural sector with the improvements in transport and communication as also banking facilities, there is need to develop long-term capital market(s). It is easier to develop such markets in metropolitan and larger cities where already 'stock markets' exist. Kanpur already has a stock market and there is no difficulty in initiating the growth of 'mortgage bonds market as a part of the stock market - in which interest and collaboration

5) Economic and Social Council (ECOSOC) in its Resolution 1170(XL.1) for financing housing and community services under clauses 2 and 3 requested the U.N. international and regional development finance institutions 'to continue to make special efforts to respond to requests for assistance in financing housing' and community development projects, including the financing of more building materials, and research and experimental institutions.

can be taken by long-term fund holding financial institutions like Life Insurance Corporation, Employees State Insurance Corporations, Government and Non-Government Provident Funds, Industrial Development Corporation of India. In this venture, International Development Administration (an affiliate of IBRD), IBRD itself, as also US-AID and other such international financing organisations of Sweden, Denmark, Canada can also join in investment.

11.11 The estimate of the substantial proportion of total capital outlay which are required for community facilities (and environment improvements) may prove illusive sometimes. In this regard some studies done by W.H.O. as also a number of Committees of the Central/State Governments should be relied on. In particular it is important to always bear in mind that potable water supply is essential 'must' - and more so, in urban centres. The immediate goals that can be for water inmetropolis like Kanpur are: (i) supply of piped and potable water to all the households in Kanpur by 1990- in which a sizeable proportion should have supply in the houses; (ii) at all hours suitable water supply even at low pressures or at least for 5 hours in the morning and another 5 hours in the evening; (iii) administration of water supply schemes should be run by autonomous organisation on the basis of management practices.

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भारतीय लोक प्रशासन संस्थान

इन्द्रप्रस्थ इस्टेट, रिंग रोड,
नई दिल्ली-110002

A SURVEY OF SLUMS AND SQUATTER SETTLEMENTS OF KANPUR CITY
कानपुर के गंडे एवं अनाधिकृत आवास क्षेत्रों का सर्वेक्षण

HOUSEHOLD SCHEDULE
परिवारिक अनुसूची

Identification Particulars

पृष्ठभूमिका-विवरण

Name of Resident _____
निवासी का नाम

.1 Father's/Husband's Name _____
पिता/पति का नाम

.2 Name of the Cluster/Ahata _____
अहाते का नाम

.2. Population of the Cluster/Ahata
अहाते की जनसंख्या

1. Upto 50
2. 51 — 100
3. 101 — 200
4. 201 — 500
5. 501 — 1000
6. Above 1000

2.1 Locality _____
मोहल्ला

2.2 Address _____
पता

2.3 Number of houses owned by the respondent.
निवासी के अधिपत्य में मकानों की संख्या

1. Nil
2. One
3. Two
4. More than two

2.4 Type of occupied tenancy
मकान के स्वामित्व का प्रकार

1. Owned
2. Rented
3. Rent free

2.5 Monthly rent paid (Rs.) मासिक किराया (रुपए)	1. Nil 2. Upto 5 3. 6 — 10 4. 11 — 20 5. Above 20
3. Kind of birth place जन्म-स्थान का वर्ग	1. Rural 2. Urban
3.1 Place of birth जन्म-स्थान	1. Kanpur 2. Other districts of U.P. 3. States other than U.P.
4. Religion धर्म	1. Hindu 2. Muslim 3. Sikh 4. Christian 5. Budhist/Jain
4.1 Do you belong to Scheduled caste/Scheduled tribe ? क्या आप अनुसूचित जाति/अनुसूचित जनजाति के हैं ?	1. Yes 2. No
II. Housing Particulars आवास-सम्बन्धी-विवरण	
5. Name of owner of the house _____ मकान मालिक का नाम	
5.1 Does the landlord stay in the cluster ? क्या मकान-मालिक अहाते में रहता है ?	1. Yes 2. No
6. Approximate living area [sq.m.] रहने की जगह का अनुमानित क्षेत्रफल [वर्ग मीटर में]	1. Upto 20 2. 21 — 50 3. Above 50
6.1 Number of rooms in the house मकान में कमरों की संख्या	1. One 2. Two 3. Three 4. Above Three
6.2 Number of doors in the house मकान में दरवाजों की संख्या	1. Nil 2. One 3. Two 4. Three 5. More than three
6.3 Number of windows in the house मकान में खिड़कियों की संख्या	1. Nil 2. One 3. 2 — 3 4. Above three

6.4 Condition of the house
मकान किस स्थिति में है

1. Good
2. Satisfactory
3. Bad

6.5 (a) Opening of the house
मकान का खुलापन

1. Nil
2. One side
3. Two side
4. Three side
5. All sides

6.5 (b) How houses are localised ?
मकान किस प्रकार की श्रेणी में है ?

1. Back to back
2. Side to side
3. With common walls

6.6 Structure of slum dwelling (floor)
गंदी बस्ती के आवास स्थान के फर्श की बनावट

1. Pucca/brick & cement
2. Kutcha/Mud
3. Semi Pucca

6.7 Structure of slum dwelling (wall)
गंदी बस्ती के आवास स्थान की दीवारों की बनावट

1. Pucca
2. Kutcha
3. Semi Pucca

6.8 Structure of slum dwelling (roof)
गंदी बस्ती के आवास स्थान की छतों की बनावट

1. Tin
2. Asbestos
3. Mud/Thatch
4. Brick & Tyle

6.9 Description of verandah
बरामदे का विवरण

1. No verandah
2. Covered
3. Uncovered.

7.0 Open space
खुली जगह

1. No open space
2. Front
3. Back
4. Side

8.0 Have you electric light ?
क्या आपके यहां बिजली है ?

1. Yes
2. No

9.0 Whether water logging during rainy season ?
क्या बरसात में आपके यहां पानी जमा हो जाता है ?

1. Yes
2. No

10.0 Who bears the repairing charges of the house ?
घर की मरम्मत का खर्च कौन उठाता है ?

1. Self
2. Landlord

11.0 Number of Co-tenants
कितने और किरायेदार आपके साथ हैं ?

1. Nil
2. 1
3. 2 — 4
4. 5 — 6
5. 7 — 10
6. More than 10

12.0 Have you animals ?
क्या आपके पास मवेशी हैं ?

1. Yes
2. No

12.1 Number of cows
गायों की संख्या

1. Nil
2. One
3. Two
4. Three
5. More than three

12.2 Number of buffaloes
भेंसों की संख्या

1. Nil
2. One
3. Two
4. Three
5. More than three

12.3 Number of pigs
सूअरों की संख्या

1. Nil
2. One
3. Two
4. Three
5. More than three

12.4 Number of Goats
बकरियों की संख्या

1. Nil
2. One
3. Two
4. Three
5. More than three

12.5 Number of donkeys
गधों की संख्या

1. Nil
2. One
3. Two
4. Three
5. More than three

12.6 Number of horses
घोड़ों की संख्या

1. Nil
2. One
3. Two
4. Three
5. More than three

12.7 Number of hens/chickens
मुर्गे/मुर्गियों की संख्या

1. Nil
2. Upto 5
3. 6 — 10
4. 11 — 20
5. Above 20

III. Amenities for Your House

घर की सुविधाएं

13.0 Tap/Hand Pump/Well (outside distance in metres)
 नल/बर्मा/कुंग्रां [यदि घर में बाहर हो तो दूरी मीटर में]

1. In the house
2. Upto 30
3. 31 — 60
4. 61 — 100
5. Above 100

13.1 Used by persons (Number) (Tap/Hand Pump/well)
 नल/बर्मा/कुंग्रां का उपयोग कितने लोग करते हैं

1. Upto 10
2. 11 — 20
3. 21 — 30
4. 31 — 50
5. 51 — 100
6. Above 100

13.2 Latrine (outside distance in metres)
 शौचालय [यदि घर से बाहर हो तो दूरी मीटर में]

1. In the house
2. Upto 30
3. 31 — 60
4. 61 — 100
5. More than 100

13.3 Latrine used by persons (Number)
 शौचालय इस्तेमाल करने वालों की संख्या

1. Upto 10
2. 11 — 20
3. 21 — 30
4. 31 — 50
5. 51 — 100
6. Above 100
7. Going out

13.4 Bathroom (outside distance in metres)
 स्नानघर [अगर बाहर हो तो दूरी मीटर में]

1. In the house
2. Upto 30
3. 31 — 60
4. 61 — 100
5. Above 100
6. Arrangement is made in the house

13.5 Bathroom used by number of persons
 स्नानघर इस्तेमाल करने वालों की संख्या

1. Upto 10
2. 11 — 20
3. 21 — 30
4. 31 — 50
5. 51 — 100
6. Above 100

14.0 Distance of pucca road from your house (in metres)
 घर से पक्की सड़क की दूरी (मीटर में)

1. Very near the house
2. Upto — 30
3. 31 — 60
4. 61 — 100
5. Above 100

14.1 Distance of kutcha road from your house (in metres) घर से कच्ची सड़क की दूरी (मीटर में)	1. Very near the house 2. Upto 30 3. 31 — 60 4. 61 — 100 5. Above 100
14.2 Distance of road having electric light from your house (in metres) घर से बिजली की रोशनीयुवत सड़क की दूरी (मीटर में)	1. Very near the house 2. Upto 30 3. 31 — 60 4. 61 — 100 5. Above 100
14.3 Distance of pucca drain from your house (in metres) घर से पक्की नाली की दूरी (मीटर में)	1. Very near the house 2. Upto 30 3. 31 — 60 4. 61 — 100 5. Above 100
14.4 Distance of kutcha drain from your house (in metres) घर से कच्ची नाली की दूरी (मीटर में)	1. Very near the house 2. Upto 30 3. 31 — 60 4. 61 — 100 5. Above 100
14.5 Distance of sewerage system from your house (in metres) घर से भूमिगत मलनिकास व्यवस्था की दूरी [मीटर में]	1. Very near the house 2. Upto 30 3. 31 — 60 4. 61 — 100 5. Above 100 6. No sewerage in the house/cluster
15.0 Garbage कूड़ा क्रकट	1. Cleared regularly 2. Cleared occasionally 3. Not cleared
16.0 House used as घर के प्रयोग का रूप	1. Residential 2. Residence-cum-commercial 3. Residential-cum-industrial 4. Commercial
IV. Migration Particulars स्थानान्तरण सम्बन्धी विवरण	
17.0 Year of arrival in Kanpur कानपुर आने का वर्ष	1. Living since birth 2. Before 1947 3. 1948 — 1960 4. 1961 — 1970 5. After 1970

17.1 With whom you came to Kanpur ?

आप कानपुर किसके साथ आये थे ?

1. Alone
2. With wife
3. With children
4. With whole family
5. With relatives
6. With friends
7. Not applicable as living in Kanpur since birth

17.2 Whether moved from a slum elsewhere in Kanpur ?

क्या आप कानपुर की किसी अन्य बस्ती से यहां आये हैं ?

1. Yes
2. No

17.3 If yes, from which type of house ?

यदि हां तो जहां से आप आये वहां पर घर के स्वामित्व की स्थिति

1. Servant's quarter
2. Factory quarter
3. Relatives place
4. Not applicable

17.4 Did you motivate or help any one to migrate to Kanpur ?

क्या आपने कानपुर आने में किसी अन्य व्यक्ति को प्रेरणा या सहायता दी है ?

1. No help
2. Help in getting work/job
3. Help in getting accommodation

18.0 What was the size of land holding in your native place ?

आपके निजी स्थान/गांव में स्वयं की कितनी भूमि थी

1. Nil
2. Up to one acre
3. 1.1 — 2 acres
4. 2.1 — 5 acres
5. More than five acres
6. Not applicable as living in Kanpur since birth

19.0 Type of the right on land

भूमि के अधिकार का प्रकार

1. No Land
2. Bhoomidari
3. Temporary
4. Not applicable as living in Kanpur since birth

20.0 Nature of house in the native place

निजी स्थान/गांव में घर का विवरण

1. Not applicable as living in Kanpur since birth
2. No house
3. Pucca
4. Kutcha

20.1 Total number of persons dependent on land before migration (native place)

स्थानान्तरण से पूर्व भूमि पर कितने व्यक्ति निर्भर करते थे ?

1. Not applicable as living in Kanpur since birth
2. No land
3. Nil
4. 1 — 5
5. 6 — 10
6. 11 — 20
7. Above 20

20.2 Total number of persons dependent on land after migration (native place)

स्थानान्तरण के पश्चात भूमि पर निर्भर व्यक्तियों की संख्या

1. Not Applicable as living in Kanpur since birth.
2. No land
3. Nil
4. 1 — 5
5. 6 — 10
6. 11 — 20
7. Above 20

20.3 Did you cultivate land in your native place as

यदि आप खेती करते थे तो आपकी खेती का अनुबंध कैसा था ?

1. Not applicable as living in Kanpur since birth
2. Own cultivator
3. Hired labour
4. Bataidar
5. Was not cultivating land

20.4 Did you leave the village/native place because (give two main reasons)

आपने अपना गांव/जन्म स्थान किस लिए छोड़ा [दो मुख्य कारण बतलाइये]

1. Not applicable as living in Kanpur since birth
2. Had no land to cultivate
3. Of family quarrels and intrigues
4. You found your self misfit in the village society
5. You were oppressed by zamindars/relations
6. You were attracted by city life
7. You had friends and relatives to get you a job in Kanpur
8. Your cottage industry/hereditary profession was ruined
9. In spirit of adventure for a new life

V. Household Composition and Income

परिवार की बनावट एवं आय

21.0

S. No. क्रमांक	Relation to Self स्वयं से संबंध	Sex* लिंग	Age उम्र	Marital Status† वैवाहिक स्थिति	Education‡ शिक्षा	Present Occupation व्यवसाय	Present Monthly Income (Rs.) वर्तमान मासिक आय (₹)
1.	Self मुखिया						
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
Total कुल योग							

* 1. Male 2. Female

† 1. Married 2. Unmarried 3. Widow/widower 4. Divorcee

‡ 1. Illiterate 2. Primary 3. Middle 4. High School 5. Intermediate 6. Graduate
7. Above graduate 8. Technical/Vocational Qualification

21.1 Per day income of the head of the family, if he is a casual worker (Rs.)

परिवार का मुखिया अनियत कर्मचारी है तो उसकी दैनिक आय [रुपयों में]

1. Upto 5
2. 6 — 10
3. 11 — 15
4. Above 15
5. Not in casual employment

21.2 Number of days worked last month, if the head of the family is a casual worker

परिवार का मुखिया अनियत कर्मचारी है तो पिछले माह उसने कितने दिन कार्य किया ?

1. 0 — 15
2. 16 — 20
3. Above 20
4. The head of the family is not a casual employee

VI. Expenditure

व्यय

22.0 Total expenditure of the family last month (Rs.)

पिछले मास में आपके परिवार का कुल खर्च कितना रहा ? [रुपयों में]

1. Upto 100
2. 101 — 150
3. 151 — 200
4. 201 — 250
5. 251 — 300
6. 301 — 500
7. 501 — 1000
8. Above 1000

23.0 Details of monthly expenditure (Rs.)

मासिक व्यय का विवरण [रु०]

रुपये

1. Food	1. खाद्य	
2. Fuel—Light	2. कोयला बिजली	
3. Clothing	3. कपड़े	
4. Housing	4. आवास	
5. Education	5. शिक्षा	
6. Liquor	6. मदपान	
7. Health and medicine	7. स्वास्थ्य व दवाईयाँ	
8. Amusement	8. मनोरंजन	
9. Conveyance	9. वाहन	
10. Remittance	10. कहीं रुपये भेजना	
Total Rs.	कुल रुपये	

23.1 Details of durable and semi-durable household goods possessed

काफी अर्से तक चलने वाली घर की वस्तुओं का व्योरा

Possessed घर में है
(tick only)

1. Wrist Watch	1. हाथ घड़ी	
2. Fan	2. पंखा	
3. Radio/Transistor	3. रेडियो/ट्रांजिस्टर	
4. Sewing Machine	4. कपड़ा सीने की मशीन	
5. Bicycle	5. साइकिल	
6. Push cart	6. ठेला गाड़ी	
7. Auto ricksha	7. स्कूटर रिक्शा	
8. Cycle ricksha	8. साईकिल रिक्शा	
9. Charpoy/Furniture	9. चारपाई/फर्नीचर	
10. Tonga/Rehri	10. तांगा/रेहड़ी	

VII. Saving and Borrowing

बचत एवं कर्ज

24.0 Do you have saving ?

क्या आप बचत करते हैं ?

- 1. Regular
- 2. Occasional
- 3. Never

24.1 Amount saved last month (Rs.)

आपने पिछले माह कितनी बचत की थी ? [रुपये]

- 1. Nil
- 2. Upto 5
- 3. 6 — 10
- 4. 11 — 25
- 5. 26 — 50
- 6. 51 — 100
- 7. Above 100

24.2 What is your present total saving (Rs.) ?

आपको कुल बचत अब तक कितनी है [रुपये]

- 1. Nil
- 2. Upto 250
- 3. 251 — 500
- 4. 501 — 1000
- 5. 1001 — 2500
- 6. 2501 — 5000
- 7. Above 5000

24.3 Where do you deposit your saving ? [Give two main places]

आप अपनी बचत कहां जमा करते हैं ? [दो मुख्य स्थान बताइये]

- 1. No saving
- 2. At home
- 3. Post office
- 4. Bank
- 5. Insurance
- 6. Provident fund
- 7. Relatives

25.0 Do you borrow ?

क्या आप कर्ज लेते हैं ?

1. Never
2. Regular
3. Occasional

25.1 Amount borrowed last month (Rs.)

आपने पिछले माह कितना कर्ज लिया था [रु०]

1. Nil
2. Upto 10
3. 11 — 25
4. 26 — 50
5. 51 — 100
6. Above 100

25.2 What is your total indebtedness ? (Rs.)

आपका अब तक कुल कर्ज कितना है ? [रुपयों में]

1. Nil
2. Upto 250
3. 251 — 500
4. 501 — 1000
5. 1001 — 2500
6. 2501 — 5000
7. Above 5000

25.3 Reasons for borrowing (Give two main reasons)

आपने कर्ज क्यों लिया था ? [मुख्य कारण बतलाइये]

1. Not borrowed
2. Household expenses
3. Ceremonies
4. Illness
5. Travel
6. Business

25.4 Source of borrowing (Give two main sources)

आपने कर्ज कहां से लिया था ? [दो मुख्य साधन बतलाइये]

1. Not borrowing
2. Money lender
3. Grocer
4. Employer
5. Chit fund
6. Banks
7. Friends
8. Relatives

25.5 Periodicity of repayment

आप कर्ज का भुगतान किस समयान्तर पर करते हैं

1. Weekly
2. Monthly
3. Half-yearly
4. Yearly

25.6 Rate of interest (monthly)

कर्ज की मासिक व्याज दर क्या है ?

1. Not borrowed
2. Nil
3. Upto — 25%
4. 26% — 50%
5. 51% — 100%
6. Above 100%

25.7 Security for loan (mention two main sources)

कर्ज के लिए गिरवी का रूप [दो मुख्य साधन बतलाइये]

1. Not borrowing—not applicable
2. No security
3. Ornaments
4. Land
5. Bond
6. Utensils
7. Implements

26.0 Social Security (two main sources)

सामाजिक सुरक्षा [दो मुख्य साधन बतलाइये]

1. Insurance
2. Provident fund
3. Inherited property
4. Ornaments

VIII. Health Particulars

स्वास्थ्य सम्बन्धी विवरण

27.0 Whom do you normally consult in case of illness ? (mention only one main)

बीमार होने पर सामान्यतः आप कहाँ इलाज करते हैं ?
[केवल एक जो सर्वाधिक मुख्य हो]

1. Private doctor
2. Hospital/dispensary
3. Vaid / Hakim / Homoeopath

27.1 Reasons for consulting (give one main reason)

उस खास जगह इलाज कराने की वजह क्या है ?
[कोई एक सर्वाधिक मुख्य कारण बताइये]

1. Easy approach
2. Not costly
3. Nearness
4. Saving of time
5. Better treatment

27.2 Is any member suffering from continuous ill-health ?

क्या आपके परिवार का कोई सदस्य लम्बी बीमारी का शिकार है ?

1. Yes
2. No

27.3 Nature of outbreak of epidemic in slum (last 3 years) (Two main)

क्या पिछले तीन वर्षों में आपकी बस्ती में कोई महामारी फैली थी, यदि हाँ तो किन्हीं दो मुख्य बीमारियों का विवरण दें

1. No outbreak
2. Cholera
3. Flu
4. Malaria
5. Measles
6. Pox

28.0 Number of birth in the family during the last three years.

पिछले तीन वर्षों में आपके परिवार में कितने बच्चों का जन्म हुआ ?

1. Nil
2. 1
3. 2-3

28.1 Was there any death in your house during last 3 years

क्या पिछले तीन वर्षों में आपके घर कोई मृत्यु हुई है ? [संख्या]

1. Nil
2. 1
3. 2-3
4. More than 3

28.2 Was there any death of your family member within one year of age (last 3 years)
क्या इनमें से किसी की उम्र एक वर्ष से कम थी

1. Nil
2. 1
3. 2-3
4. More than 3

29.0 How many children do you think in your opinion a man of your status should have ?
आपकी राय में आपकी हैसियत के व्यक्ति की कितनी संतान होनी चाहिए ?

1. None
2. One
3. Two
4. Three
5. More than three

30.0 Are you aware of family planning ?
क्या आप परिवार नियोजन से परिचित हैं ?

1. Yes
2. No

30.1 Which method your family has adopted for family planning ? (Give one main method)
परिवार नियोजन के लिए आप किस तरीके का इस्तेमाल करते हैं ?
[कोई एक सर्वाधिक मुख्य विधि बतलाइये]

1. Vasectomy
2. Tubectomy
3. Pills
4. Nirodh
5. Loop
6. No method
7. Not applicable

30.2 What does small family mean (mention one main)
आपकी राय में छोटा परिवार क्या मतलब रखता है [कोई एक मुख्य कारण बतलाइये]

1. Happiness
2. Better attention to children
3. Not very useful

IX. Convenience and Conveyance Particulars

सुविधा एवं वाहन सम्बन्धी विवरण

31.0 Average expenditure (per month) on conveyance (Rs.)
वाहन पर मासिक औसत कितना खर्च आता है [रु०]

1. Nil
2. Upto 5
3. 6 — 15
4. 16 — 25
5. 26 — 50
6. 51 — 100
7. Above 100

31.1 Mode of transport frequently used (Give two main)
किस वाहन का उपयोग करते हैं ? [दो मुख्य साधन बताइये]

1. On foot
2. Tonga
3. Cycle
4. Scooter/Motor cycle
5. Cycle rickshaw
6. Bus

31.2 Distance of work place from your house (Km)
घर से काम करने की जगह की दूरी [किलोमीटर में]

1. Upto $\frac{1}{2}$
2. $\frac{1}{2} — 1$
3. 1 — 3
4. 3 — 5
5. Above 5

31.3 Distance of the nearest market from your house (Km)

घर से निकटतम बाजार की दूरी [किलोमीटर में]

1. Upto $\frac{1}{2}$
2. $\frac{1}{2} - 1$
3. $1 - 3$
4. $3 - 5$
5. **Above 5**

31.4 Distance of the nearest dispensary/hospital from your house (Km)

घर से निकटतम चिकित्सालय की दूरी [किलोमीटर में]

1. Upto $\frac{1}{2}$
2. $\frac{1}{2} - 1$
3. $1 - 3$
4. $3 - 5$
5. **Above 5**

31.5 Distance of the nearest post office from your house (Km)

घर से निकटतम डाकघर की दूरी [किलोमीटर में]

1. Upto $\frac{1}{2}$
2. $\frac{1}{2} - 1$
3. $1 - 3$
4. $3 - 5$
5. **Above 5**

31.6 Distance of nearest bank from your house (Km)

घर से निकटतम बैंक की दूरी [किलोमीटर में]

1. Upto $\frac{1}{2}$
2. $\frac{1}{2} - 1$
3. $1 - 3$
4. $3 - 5$
5. **Above 5**

31.7 Distance of the nearest school/college from your house (Km)

घर से निकटतम स्कूल/कॉलेज की दूरी [किलोमीटर में]

1. Upto $\frac{1}{2}$
2. $\frac{1}{2} - 1$
3. $1 - 3$
4. $3 - 5$
5. **Above 5**

32.0 Whether your children of school going age are attending school/college

क्या आपके घर में स्कूल जाने वाले उम्र के सारे बच्चे स्कूल जाते हैं ?

1. Not attending
2. Some are attending
3. All are attending

32.1 Reasons for not attending school/college (give two main reasons)

अगर नहीं तो, उनके स्कूल न जाने की क्या वजह है ? [दो सर्वाधिक मुख्य कारण बतलाइये]

1. Not applicable as children are going to school
2. No school/college nearby
3. Tried but could not get admission
4. Financial difficulties
5. Health reasons
6. Work at home
7. Not interested
8. Earning money

33.0 Value of total immovable property outside Kanpur (Rs.)

कानपुर से बाहर आपकी अचल सम्पत्ति का अनुमानित मूल्य कितना है [रुपयों में]

1. Have no property outside Kanpur
2. Upto 1000
3. 1001 — 3000
4. 3001 — 5000
5. **Above 5000**

33.1 Value of total immovable property in Kanpur (Rs.)
कानपुर में आपकी अचल सम्पत्ति का अनुमानित मूल्य कितना है ?
(रुपयों में)

1. Have no property in Kanpur
2. Upto 1000
3. 1001 — 3000
4. 3001 — 5000
5. Above 5000

1. Yes
2. No

1. Have no contact
2. Quarterly
3. Annual
4. Once in 2 years
5. Once in 5 years
6. More than 5 years
7. Not applicable as Kanpur is native place.

1. Have no close relative outside Kanpur
2. Do not send money
3. Sending money

34.0 Have you settled permanently in Kanpur ?
क्या आप कानपुर में सदा के लिये बस गये हैं ?

35.0 Do you visit your native place ? (other than Kanpur)
क्या आप अपने गांव/जन्मभूमि आते-जाते रहते हैं ?

XI. Attitude

दृष्टिकोण

36.0 Are you aware of slum clearance/improvement work in Kanpur ?
क्या आपको पता है कि कानपुर में गन्दी बस्तियों के सुधार और उन्मूलन का कार्य चल रहा है ?

1. Yes
2. No

37.0 Would you like to move from this place with in Kanpur ?
क्या आप इस मोहल्ले से कानपुर में ही किसी दूसरे मोहल्ले में जाने को राजी होते ?

1. Yes
2. No

37.1 Reason for not seeking a change (two main reasons)
अगर नहीं—तो यह बतलाइये कि किस वजह से आप यहां से किसी दूसरी जगह जाने को तैयार नहीं हैं ? [दो मुख्य कारण बताइये]

1. Dislocation of work link
2. Dislocation of community link
3. Dislocation of children's education
4. General apathy
5. Lack of interest in new environment
6. Distance of dispensary/hospital
7. Distance of Market
8. Difficult to get transport
9. Not applicable as would like to move from this place

37.2 Do you like to go out of Kanpur ?

क्या आप कानपुर से बाहर जाना पसंद करेंगे ?

1. Yes

2. No

37.3 Give two main reasons for not going out of Kanpur

ग्रगर नहीं, तो क्या वजह है [दो मुख्य कारण बताइये]

1. No house to live in
2. Children are likely to be employed in Kanpur
3. Your business is flourishing or has better scope
5. Difficulties of getting work/job
6. Educational difficulty
7. Not applicable as I shall go out of Kanpur.
4. Become used to live in Kanpur

38.0 Are you prepared to shift to a better house ?

क्या आप किसी अच्छे मकान में जाना पसंद करेंगे ?

1. Yes

2. No

38.1 How much maximum you can spend every month for a tenement (Rs.) of your own ?

आप प्रति माह कितना किराया देने को तैयार हैं ? (रुपयों में)

1. Don't like to move
2. Upto 5
3. 6 — 10
4. 11 — 25
5. 26 — 50
6. Above 50
7. Can't afford

38.2 Can you build your house through self help technique?

व्यां आप स्वयं सहाय तकनीकी के आधार पर मकान बना सकते हैं ?

1. Yes

2. No

38.3 What accommodation do you need ? (No. of rooms).

आपको कितने बड़े मकान की आवश्यकता है ? [कमरों की संख्या]

1. Not applicable as I do not want any other house
2. One
3. Two
4. Three
5. More than three

38.4 To what distance you would like to shift from the present residence

मकान के लिए आप कितनी दूर तक जा सकते हैं [दूरी किलोमीटर में]

1. Not applicable as will not like to move
2. Upto 1
3. 2 — 4
4. 5 — 10
5. More than 10

38.5 Where do you go mostly for recreation ? (Give two places).

आप मनोरंजन के लिये बहुधा कहाँ जाते हैं ? [दो सर्वाधिक मुख्य स्थान बताइये]

1. Movies
2. Religious place/functions
3. Dramas/Notanki
4. Fairs

39.0 Do you belong to any political party ? if yes, give the name

क्या आप किसी राजनैतिक दल से सम्बन्धित हैं ? यदि हैं तो उस दल का नाम बतलाइये ।

1. Not related to any political party
2. Congress
3. Jan Sangh
4. Communist
5. Janta Front
6. Swatantra
7. Socialist
8. B. K. D.

39.1 Did you vote in the last election ?

क्या आपने पिछले चुनाव में मत दिया था ?

1. Yes
2. No

XII. Evaluation of Happiness and Unhappiness

सुख-दुख का मूल्यांकन

40.0 What is the best possible condition of your life (state) ?

आपके मन में जीवन की सबसे सुखद अवस्था कौन सी है ?

40.1 What is the worst possible condition of your life (state) ?

आपके मन में जीवन की सबसे दुखद अवस्था कौन सी है ?

40.2 Whether you consider yourself

क्या आपका जीवन सुखमय है

1. Happy
2. Unhappy.

Investigator's remarks

निरीक्षक द्वारा मूल्यांकन

1. Signature of Investigator

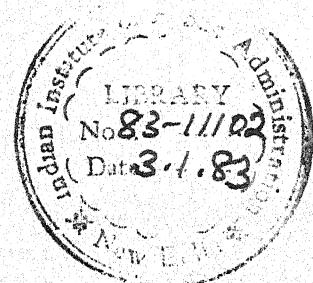
निरीक्षक के हस्ताक्षर

2. Date

दिनांक

3. Supervisor's Assessment

परिनिरीक्षक द्वारा मूल्यांकन



Signature of Supervisor
परिनिरीक्षक के हस्ताक्षर

